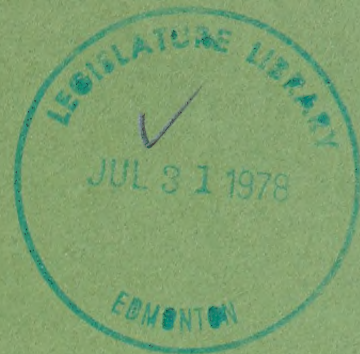


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Analysis of Offshore Markets For Canada  
in Rapeseed Oil And Meal. 1



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# ANALYSIS OF OFFSHORE MARKETS FOR CANADIAN RAPESEED OIL AND MEAL

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ANALYSIS OF OFFSHORE MARKETS  
FOR CANADIAN RAPESEED  
OIL AND MEAL

Prepared For  
Transport Research and Development Division  
Department of Industry and Commerce  
Province of Alberta

K. Arlene Pardee,  
Planning and Intelligence Branch,  
Department of Industry and Commerce,  
Province of Alberta,  
April, 1972.



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## PREFACE

The objective of this report is to delineate potential offshore markets for Canadian rapeseed oil and meal. It is assumed that Canada has adequate export availabilities of these commodities so no detailed analysis of the Canadian oil or meal situation is compiled.

This report assumes the hindrances presently limiting the movement of oil and meal into export position will be resolved. The prime existing obstacles are the lack of port facilities to handle oil and meal plus the high railway freight rates to Canadian ports.

Unfortunately, many import tariffs and other restricting import regulations of foreign countries are not available. The resulting export potential analysis of a foreign country is thus incomplete where this information is absent.







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## CHAPTER 1

### BASIC DEFINITIONS<sub>(1)</sub>

Key terms used in this report are defined as follows:

#### OILSEEDS

Oilseeds include soybeans, peanuts, cottonseed, sunflowerseed, rapeseed, copra and palm kernels.

#### VEGETABLE OILS

Include soybean oil, groundnut oil, cottonseed oil, sunflowerseed oil, rapeseed oil, coconut oil, palm kernel oil, palm oil and olive oil.

#### OIL MEALS

The term "oilmeals" is applicable to both expeller cake (obtained from pressing seeds and generally containing 3-7 percent oil by weight) and extracted meals (obtained from solvent extraction of seeds and generally containing less than 1 percent oil by weight). The terms "oilcake" and "meal" are therefore synonymous in this report. Meals include: soybean, groundnut, cottonseed, sunflowerseed, rapeseed, copra, palm kernel and linseed.

#### OIL-EQUIVALENT BASIS

The quantity of oil contained in oilseeds produced and in oilseeds traded was converted to an oil-equivalent basis. For example, to obtain a total oil export figure for a region, the quantity of vegetable oil shipped in the form of oilseeds, or oil-equivalent was added to the quantity of vegetable oil exported as such.

#### MEAL-EQUIVALENT BASIS

The quantity of meal contained in oilseeds produced and in oilseeds traded is converted to a meal-equivalent basis. For example, to obtain a total meal trade figure for a region, the quantity of meal shipped in the form of oilseeds, or meal-equivalent, is added to the quantity of meal traded as meal.

## UNITS OF MEASUREMENT

Metric tons are used unless otherwise noted.

## TIME REFERENCE

Trade, production and apparent consumption are on a calendar year basis. All these figures are the average of two years. Averaging was done because the oilseed, oil and meal markets are quite volatile. For example in most regions of the world, climate conditions vary greatly each year. While a country may normally produce a sizeable oilseed crop, drought conditions one year will significantly affect the level of output.

## APPARENT CONSUMPTION

The tables on apparent consumption refer to the apparent oil and meal availabilities within each country or region. Production plus imports minus exports estimate the apparent availabilities. All figures were converted to an oil or meal equivalent basis. Production figures were obtained from the 1971 F.A.O. Production Yearbook and import and export figures were derived from the tables in Appendix B. The main inherent weaknesses are:

- (1) No beginning and closing stocks were considered;
- (2) 100% of the availabilities were assumed to be crushed and no allowance was made for oilseeds required for seed purposes or dockage losses.

Consequently, the apparent consumption figures will be inflated. All annual percent changes are simple not compound.

## CONVERSION RATES

The conversion rates of oilseeds to oil and meal equivalent basis were taken from Oil World. These



conversion rates are world averages. Thus, they do not reflect the varying oil content of seeds grown in the different areas of the world nor the crushing efficiencies which vary from country to country.

	<u>Crude Oil (%)</u>	<u>Oilmeal (%)</u>
Soybeans	18	79
Cottonseed	16	69
Groundnuts, shelled	44	56
Sunflowerseed	44	37
Rapeseed	39	57
Copra	64	35
Palm Kernels	47	52

Refer to Appendix A for a description of oilseeds, oils and meals.

- (1) Most of this section was derived from World Supply and Demand Prospects for Oilseeds and Oilseed Products in 1980, U.S. Department of Agriculture, Washington, D.C., 1971.

## CHAPTER 2

### REGIONAL GROUPING OF COUNTRIES

For analysis of importing and exporting countries, the world was divided into 19 regions, based on economic, political and geographic criteria.

#### Developed

1. United States
2. European Economic Community : Belgium, Luxembourg, France, Federal Republic of Germany, Italy and The Netherlands.
3. United Kingdom
4. Other Western Europe : Austria, Greece, Ireland, Malta, Portugal, Spain and Switzerland
5. Scandinavia : Norway, Denmark, Finland, Iceland and Sweden.
6. Japan
7. Australia and New Zealand
8. Republic of South Africa

#### Central Plan

9. Eastern Europe : Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Rumania, and Yugoslavia.
10. U.S.S.R.
11. Communist Asia : Mainland China, Mongolia, North Korea and North Vietnam.



## Less Developed

- |     |                               |   |  |
|-----|-------------------------------|---|--|
| 12. | Central America<br>and Mexico | : | British Honduras,<br>Caribbean including<br>Cuba, Costa Rica,<br>El Salvador, Guatemala,<br>Honduras, Mexico,<br>Nicaragua and Panama.   |
| 13. | South America                 | : | Argentina, Bolivia,<br>Brazil, French Guiana,<br>Paraguay, Surinam,<br>Uruguay, Venezuela,<br>Chile, Colombia,<br>Ecuador, Peru and Guyana.  |
| 14. | East and West<br>Africa       | : | Botswana, Burundi,<br>Ethiopia, Kenya, Lesotho,<br>Malagasy Republic, Malawi,<br>Mauritius, Mozambique,<br>Rhodesia, Rwanda, Somalia,<br>Swaziland, Tanzania,<br>Uganda and Zambia.<br><br>Angola, Cameroon, Central<br>Africa Republic, Chad,<br>Congo (Kinshasa), Congo<br>(Brazzaville), Dahomey,<br>Gabon, Gambia, Ghana,<br>Guinea, Ivory Coast,<br>Liberia, Mali, Mauritania,<br>Niger, Nigeria, Portuguese<br>Guinea, Senegal, Sierra<br>Leone, Togo, Upper Volta<br>and Other Portuguese West<br>Africa. |
| 15. | North Africa                  | : | Algeria, U.A.R. (Egypt),<br>Libya, Morocco, Sudan,<br>Tunisia.   |
| 16. | West Asia                     | : | Bahrein, Cyprus, Iran, Iraq,<br>Israel, Jordan, Kuwait,<br>Lebanon, Muscat and Oman,<br>Qatar, Saudi Arabia, South<br>Yemen, Syria, Trucial States,<br>Turkey and Yemen.   |

- |     |                                   |  |
|-----|-----------------------------------|--|
| 17. | South Asia:                       | Afghanistan, Bhutan, Ceylon,<br>India, Nepal and Pakistan.   |
| 18. | Southeast Asia:                   | Burma, Cambodia, Laos,<br>South Vietnam and Thailand   |
| 19. | East Asia and<br>Pacific Islands: | Brunei, China (Taiwan), Hong<br>Kong, Indonesia, South Korea,<br>Macao, Malaysia, New Guinea,<br>Pacific Islands, Papua,<br>Philippines and Singapore. |



## CHAPTER 3

### PRICING OF VEGETABLE OILS AND MEALS

No other group of commodities is probably as diverse in terms of production, marketing, processing and sources of supply. Approximately 20 kinds of oils and fats compete in world trade. Some are annual crops. Many are by-products of plants and animals. The demand for fats and oils does not parallel the demand for meals from vegetable oilseeds. With all these variables plus others, the pricing system is extremely complex.

The price level of an oilseed is mainly determined by the price of its oil and meal components. The combined value of the oil and meal exceed the price of the original oilseed because these by-products include crushing costs and margins. Some oilseeds are processed primarily for the oil component and others for the meal. Soybeans are termed "mealseeds" due to the value of soybean meal being much greater than the value of the oil per ton of the product. Rapeseed is primarily processed for its oil rather than meal component. The desired component's price strongly influences the future price expectations of the parent oilseed. In the last few years, the tremendous world demand for vegetable oils coupled with the relatively short supply of oil, greatly encouraged the expansion of oilseeds high in oil. Rapeseed, as such an oilseed, benefited.

The basic supply situation influencing prices is not just composed of production levels. The expected export availabilities is also important. For example, while U.S. production of soybeans is expected to expand this year, the export availabilities will decline due to depletion of stocks plus increasing domestic demand.

Demand is the other major variable for price determination. Consumer preferences for specific vegetable oils exist. Also, many secondary manufacturers prefer certain oils in manufacturing.

Other influencing variables are:

- (a) Geographical distribution
- (b) Timing - southern and northern hemispheres harvest at different times on the supply side and on the demand side, purchasing follows changes in overall price tendency.

- (c) External factors - political decisions, tariff structures, currency changes, strikes and so on.

The increasing substitutability of vegetable oils has tended to affect prices. Often the interchangeability of a lower-priced oil has narrowed the price spreads with more expensive oils. This fact has also lessened the period of short-term price fluctuations. If an oil temporarily becomes too expensive, the consumer can easily switch to a lower-priced one. There is usually a close price correlation between interchangeable oils.

The price of meals depend primarily on livestock production and the feeding of concentrate rations per unit of livestock output. To a certain extent, meals compete with other feed grains such as wheat, corn, barley and oats. In more technologically-advanced nations, the compound feed industry uses larger rations of meal or high-protein supplements.

The different meals are substitutable in varying degree even though the chemical, fibre and other biological characteristics of each meal differs.

As the prime purpose in utilizing meals is to obtain high-protein supplements, the higher the crude protein content and essential amino-acid components of this protein, the more desirable the meal. For example, fish meal contains the highest percent of crude protein, 64%, compared to rapeseed meal with 34%. Consequently, all other meals are price discounted to fish meal.

International buying and selling can take varied forms. The most common arrangement is to use a broker or exchange company; a similar situation when company stocks are purchased through a stock broker. Like the stock broker, the oil broker charges a commission for handling the sale. This commission is usually charged to the seller to cover insurance, export documents, arranging a ship, and other services.

PRICE COMPARISONS FOR SELECTED OIL-BEARING MATERIALS,  
OILS AND FATS, AND CAKES AND MEALS<sup>(1)</sup>

Commodity	1960 - 69			Average			
	High	Low	10-year average	January -			
				1970	August 1971	September 1971	October 1971
					(U.S. \$/metric ton)		
<u>OIL-BEARING MATERIALS</u>							
Soybeans:							
United States (2)	112	76	95	102	113	111	112
Europe (3)	126	92	110	121	129	128	128
Rapeseed (4)	135	104	120	137	147	124	129
Peanuts (5)	207	168	188	229	265	233	226
Copra (6)	232	164	196	204	204	175	172
<u>FATS AND OILS</u>							
Soybean:							
United States (7)	258	181	214	263	278	282	291
Europe (8)	279	178	229	289	310	297	306
Palm (7)	256	172	223	256	267	265	245
Rapeseed (8)	279	161	226	262	269	277	285
Sunflower (8)	315	170	242	332	383	365	377
Peanut (10)	329	252	301	364	424	413	406
Coconut (11)	363	223	279	343	314	269	256
Lard (12)	292	169	235	275	267	259	253
Tallow (13)	203	128	158	202	204	194	189
Fish (14)	216	99	181	248	227	219	212
<u>MEALS</u>							
Soybean:							
United States (15)	92	59	78	87	87	81	82
Europe (16)	114	77	99	105	102	99	101
Fish:							
United States (17)	185	105	147	215	187	176	174
Europe (18)	182	103	147	197	178	173	166
Peanut (19)	105	93	99	112	103	91	92
Sunflower (20)	89	67	80	87	88	93	94
Linseed (21)	108	85	102	103	100	99	98

(1) C.i.f. European ports unless otherwise specified. (2) U.S. No. 1 yellow, Illinois country shipping points. (3) American No. 2 yellow, 2 percent bulk (4) Canadian (5) Nigerian, shelled (6) Philippine bulk (7) Crude, tank cars, f.o.b. Decatur (8) Any origin, ex-tank Rotterdam (9) 1960-64 5 percent bulk, 1965 and subsequent Malayan 5 percent bulk (10) 1960-64 Nigerian bulk 3 to 6 percent, 1965 and subsequent any origin 2 to 3 percent (11) Dutch, 5 percent, f.o.b. ex-mill (12) North American bulk, U.K. ports, (13) North American bleachable (14) Peruvian semirefined (15) U.S. bulk, 44 percent, f.o.b. Decatur (16) Wholesale, Hamburg (17) Peruvian 65 percent, f.o.b. U.S. East Coast ports, (18) Peruvian 65 percent (19) Indian 1960-61 54 percent expellers; 1962 and subsequent 50 percent (20) Argentine 37/38 percent (21) Argentine 39 percent.

SOURCE: U.S.D.A. Foreign Agriculture, December 13, 1971.



FATS AND OILS: LAGGED ANNUAL CHANGES IN WORLD PRODUCTION  
AND EXPORTS IN RESPONSE TO PRICE CHANGES<sup>(1)</sup>

Year	Price change from previous year <sup>(2)</sup>	Year	Production change from previous year <sup>(3)</sup>	Year	Export change from previous year
	Percent		Percent		Percent
1961	+ 2	1962	+ 3	1963	+ 4
1962	- 12	1963	- 2	1964	- 0
1963	+ 4	1964	+ 5	1965	+ 5
1964	+ 8	1965	+ 7	1966	+ 12
1965	+ 11	1966	+ 1	1967	+ 2
1966	- 11	1967	+ 4	1968	+ 5
1967	- 9	1968	+ 4	1969	- 4
1968	- 7	1969	- 2	1970	- 3
1969	+ 5	1970	+ 3	1971	+ 5
1970	+ 32	1971	+ 4	1972	+ 11
1971	+ 5	1972	+ 2	1973	(4)

(1) Excludes the United States.

(2) European prices for major edible vegetable oils weighted by the relative importance of each commodity in terms of the volume exported and calculated as an index.

(3) Includes the oil equivalent of oilseeds.

(4) Expected to increase.

SOURCE: U.S.D.A. Foreign Agriculture, December 13, 1971.

## CHAPTER 4

### CANADA - RAPESEED OIL AND MEAL SITUATION SUMMARY

- (1) Canada had a record rapeseed crop in 1971. Mainly as a result of this Canadian production, rapeseed on an oil equivalent basis plus rapeseed oil was expected to account for over half the total increase in world vegetable oil exports in 1971.
- (2) The expected expansion of domestic rapeseed crushing capacity will offer an enlarged market for Canadian growers. However, the output of oil in 1972 will probably exceed domestic consumption. The fats and oils demand, in developed countries, like Canada, is inelastic. That is, consumption does not react due to price changes. Since the per capita consumption is at the saturation level, increased usage is only attained through increased interchangeability with competitive products, import substitution and population increase.
- (3) If there had to be a surplus rapeseed oil situation in Canada, the timing is opportune by coinciding with an overall lower world export availabilities of oil, especially soybean oil.
- (4) From the summary on the world situation, lauric and palm oils will also increase markedly. A lesser but still significant increase is forecast for groundnut oil and cottonseed oil.
- (5) To capture the normal soybean oil markets, price will be the key variable. Since rapeseed oil is not as popular as the other soft oils that will be available in larger volumes, the price discounts with these oils may have to be larger. Also, a lower premium over palm oil may have to exist.

- (6) The selling of this rapeseed oil is not only vital to our domestic crushers, but also to our growers if the expected rapeseed carryover is not to exceed the 20-25 million bushels at the end of the 1971-72 crop year.
- (7) World supplies of meals will be the lowest since 1964. Increased use of rapeseed meal will be forced upon foreign feeders due to the scarcity of other high protein meals. This expected increased usage may even encourage a slight price increase in rapeseed meal.
- (8) The switch to erucic-free varieties of rapeseed will benefit Canada in world markets. Lower oil content of these varieties will probably be overcome.
- (9) Unless rapeseed oil and meal can be put into export position through lower freight rates and improved bulk handling facilities at our ports, Canada will be forced to continue exporting the raw material, rapeseed. The expected lower export availabilities of soybeans and sunflowerseed will provide an excellent opportunity for Canada to develop foreign markets with our rapeseed oil and meal.



## CHAPTER 5

### SUMMARY

#### POTENTIAL OFFSHORE MARKETS FOR CANADIAN RAPESEED OIL AND MEAL

The largest world oilseed importers are the United Kingdom, the E.E.C., other Western Europe countries, Japan and North Africa. With the exception of the United Kingdom, virtually no rapeseed oil or meal has been sold to these other countries. Each country has high tariff barriers to protect and develop their domestic crushing industry.

Other countries are emerging as potential rapeseed oil importers in the short term. Several South American countries have a deficit in vegetable oils - mainly Peru, Chile and Ecuador. Like all developing nations, price is a key variable due to foreign exchange difficulties. Rapeseed oil has an advantage over other competing soft oils as it is discounted pricewise to these products. South Korea appears to be developing into an oil importer despite the numerous small domestic crushers. Rapeseed is an indigenous crop so South Koreans are familiar with rapeseed oil. India has started to purchase vegetable oils on a commercial basis rather than the former concessional sales under the United States' Public Law 480. Also, foreign aid shipments of rapeseed oil to Bangladesh may eventually develop a potential importer. Mexico is presently vegetable oil deficient. While significant strides in domestic production have been made, the rapidly rising domestic demand coupled with the vagaries of weather, soybean oil was imported in 1971. As rapeseed oil is interchangeable with soybean oil, an export opportunity may exist in Mexico. Algeria presently imports rapeseed for crushing, but rapeseed oil can enter this country duty-free.

The United Kingdom still will be an importer of our rapeseed meal in the future as it is doubtful other E.E.C. members can fill this market in the long term. The shortrun overall meal supply situation will be very low in 1972 creating an expected deficit position in the E.E.C. Since most of the crushing mills coming on stream in Europe are equipped for soybeans, the meal availabilities may be critical with the shortage of soybeans for crushing in Europe. While enlarged rapeseed imports may assist in offsetting this meal deficit, with the expanded capacity geared only for soybeans, Canada may be able to sell rapeseed meal in Europe, despite the unpopularity of rapeseed meal with the European mixed-feed industry.

Generally speaking offshore rapeseed meal sales will be difficult to develop until it is fully interchangeable with the dominate soybean meal. The technical and educational assistance Canadians are continuing to provide foreign countries is lessening this reluctance to use rapeseed meal. In some markets, the lower price of rapeseed meal may create sales. The overall world utilization of rapeseed meal will continue to increase.

In the longer term, the centrally-planned countries and developing countries may have to become oil importers if a world fats and oils surplus is not to develop. At present, the centrally-planned countries are net exporters of vegetable oils. The present per capita consumption levels are low and the latent demand may reverse this export situation over a period of time. Also, developing countries are expected to increase their oil consumption per capita. To assist in raising the consumption in these developing countries, special financial arrangements could possibly be created as these countries have foreign exchange problems.

The long term vegetable oil consumption in developed countries will continue to rise, but not at the level equalling the immediate past. Like many other food items, oil consumption per capita is reaching a saturation point. Increased population will be the prime cause of enlarged overall usage. The opposite situation for meal will probably develop. These countries are expected to greatly expand their meal requirements. Consequently, Canada should sell increased volumes of rapeseed meal to developed countries in the long run.

From the above long run situation, it would appear essential for the crushing industry to be situated in the country where the oilseed originates. This would enable the oil and meal to be shipped to the different oil-deficient and meal-deficient countries. If this long-term situation develops, the market orientation is entirely different from the current more or less equal oil and meal requirements in the present importing countries.

## CHAPTER 6

### WORLD VEGETABLE OIL AND MEAL TRADE

#### Summary

- (1) There is an apparent five-year cycle in prices of oilseeds. The price of oilseeds, oils and meals have been high for the past three consecutive years. These high prices resulted from two years of closely-balanced supply and demand and in some cases, world shortages.
- (2) High prices resulted in expanded production in 1970 and 1971. Expected fat and oil output in 1972 will be at an all-time record, 1 million tons, vs. the normal 800,000 tons annual growth.
- (3) Despite expected record production in 1972, the increase in overall export availabilities of edible oils, especially soybean oil will decline. For the third successive year, sunflowerseed is expected to be in short supply.
- (4) Two conflicting supply situations are anticipated:
  - (a) The largest increase in supplies will be rapeseed oil, palm and lauric oils. These oils are expected to increase 10% in 1972.
  - (b) The more popular traditional oils of groundnut and cottonseed are expected to expand 5%. Fish oil supplies also will be more plentiful.
- (5) To sell the rapeseed oil and lauric and palm oil, substantial price concessions may have to be made to persuade consumers not to purchase these traditional favorites that will be available in enlarged amounts.
- (6) Lauric and palm oils prices have declined sharply already, but rapeseed oil did not decline appreciably from the high level during the pre-harvest period of 1971 until recently.
- (7) The stability of rapeseed and rapeseed oil prices is influenced by the traditionally close relationship between the rapeseed market at Winnipeg and soybean market in Chicago. Since soybeans and soybean oil are expected to be in short supply, their prices did not decline following the 1971 harvest.



## Vegetable Oil

The annual increase in production of oils and fats has been about 800,000 tons during the last six years.

Edible vegetable oils are the largest group of oils and fats. The most important are: soybean, cottonseed, groundnut, sunflowerseed, rapeseed, sesameseed, safflowerseed, olive and corn. These oils comprised about half of the 1971 fats and oil output of 41 million metric tons. Of this group of 9 vegetable oils, only the first 5 are of major importance.

The second largest group are animal fats - butter, lard, greases and tallow. These fats contribute approximately 30% of the world total.

Then the third group, palm oils add 10% to the total world fats and oils supplies. Palm oils include coconut, palm kernels, palm and babassu kernels. Babassu kernels are very minor and are indigenous only in Brazil.

Marine and industrial oils are the last group of these commodities. Marine oil is fish, whale and sperm. Industrial oils - linseed, castor, oiticica and tung - are inedible.

Of these four groups of fats and oils, the edible vegetable sector has experienced the most dynamic expansion.

Rapeseed oil has enjoyed the largest relative expansion of this edible vegetable oil group. This was due to the spectacular increase in acreage in Canada, which was prompted due to difficulties in marketing our wheat. The establishment of a domestic crushing industry aided this conversion. France was the other main country where rapeseed acreage expanded. The artificially high price exceeding world levels promoted by E.E.C.'s Common Agricultural Policy, was the prime stimulus here. Other countries with expanded acreage are India, Poland and West Germany. Compared to Canada, small varying annual volumes enter world markets from these other producers.

Relatively, soybean oil output was second in growth during the study period. In absolute terms, this single oil was the largest. The

United States is the largest grower with three-quarters of world output and dominates 90% of global exports. Although Brazil's output has enjoyed remarkable growth, this country is a significantly smaller grower than the United States.

Sunflowerseed oil expanded largely before 1968. Russia and other Eastern European countries of Bulgaria, Rumania and Yugoslavia were the main participants in this growth. While Argentina's sunflowerseed crop is large, very little oil enters the world oil market.

The other annual edible vegetable oil is groundnut. At one time this was the second most significant edible vegetable oil, but production has been relatively stable for numerous reasons. While actual groundnut production increased, the largest grower, India, exports virtually no oil. In the United States, most groundnuts are for edible purposes rather than crushing. Nigeria, a major exporter, has experienced internal strife in past years, plus lower producer prices compared to world prices have not aided production. Climate conditions have also hampered output in Nigeria and Senegal. Senegalese producers ceased to enjoy a 20% price premium over world market prices for groundnuts and oil sold to France, with the inception of the E.E.C.'s Common Agricultural Policy.

Animal fat growth depends on animal herd expansion. Due to the continued and in some countries, rapid expansion of animal production, fat output will rise. Different animals have varying quantities of fat. The chronic deficiency of red meat has added emphasis to this protein source, so the overall animal fat growth rate may be reduced.

The third most important group of oils are palm oils. Coconut oil output has been depressed for the last few years due to drought; particularly affecting availabilities from the largest exporter, the Philippines. Increased tree plantings will improve output of this largest oil palm. Palm oil production has greatly expanded primarily due to the intensive tree plantings during the 1960's in Malaysia and to a lesser extent in Indonesia. This increased level of output is and will continue to have a significant impact on the world oil situation. Until 1966, West Africa was the largest palm oil producing region. Internal strife and subsequent deficient tree management and plantings reduced the output from this latter region.

High world prices for oils have existed for the past three years - 1969, 1970 and 1971. There are many basic causes:

- (a) World production of oils and fats in 1969 was virtually at the same level as 1968;
- (b) Production of key soft oils declined - groundnut, rapeseed and sunflowerseed. Only the enlarged soybean output offset a substantial reduction;
- (c) Consumption of fats and oils has been rising at an increasing rate in certain world regions;
- (d) Stocks of oilseeds and oils were at an exceptionally low level at the end of the 1968-69 crop year;
- (e) 1969 exports only rose slightly over 1968.

In response to the higher prices, production rose in 1970 and 1971. The 1972 world production is expected to rise by one million tons, substantially above the normal 800,000 annual increase. However, world export availabilities of soybeans will be lower, especially for European crushers. Of the edible soft vegetable oilseeds, rapeseed is the only one expected to be available in any quantity. Larger quantities of lauric and palm oils will also be available. Increased rapeseed will be crushed due to the lack of other crushing materials. Canada will benefit from this world oil situation. The price of rapeseed and oil may decline due to the expected larger carryover of stocks in Canada plus the unpopularity of rapeseed oil by some world manufacturers of secondary products. While price declines are also expected to develop for groundnuts, and cottonseed oil, rapeseed oil price may have to be substantially lower to conquer new markets.

The 1971 overall increase in exports of vegetable oil was expected to be attributed to rapeseed oil. Canada would provide most of this parent material with some supplies available from Poland.

### Vegetable Meals

The main vegetable meals are soybean, cottonseed, groundnut, sunflowerseed, rapeseed, copra, palm kernel and linseed (derived from flaxseed). Fish meal is also an import protein supplement for the mixed feed industry.



While the demand for meal is indirectly related to population growth, the expansion of the world beef, poultry and hog production creates the direct demand. There is also a close relationship between the other feed concentrates and the high protein feeds, which are mainly meal. The lower protein feed concentrates consist mainly of feed grains, wheat, rye and brans. While price is a deciding factor in the use of the various protein feed concentrates, the degree of feeding technical sophistication varies in different countries. Livestock/feed price ratios are also important variables.

The world demand for meals has greatly expanded in recent years. Nearly every region of the world is attempting to become self-sufficient in their meat requirements, in varying degrees.

Fish meal has the highest protein content, and as such, has commanded the highest price per unit in the world. Consumption of fish meal has declined in recent years because of this price uncompetiveness. The export availabilities of fishmeal is closely controlled by the main producing countries. While export availabilities are expected to increase in 1972, no price decline is expected due to the export controls by producing countries coupled with the expected soybean meal shortage.

The expected soybean meal shortage, especially in Europe, during the current year will probably be filled by other meals. Soybean meal is the favoured meal. The meals which will be able to gain from the soybean meal reductions are: groundnut, rapeseed, copra and palm kernel. The supply of the popular linseed meal is also expected to decline.

Rapeseed meal output will rise substantially because of Canada's large 1970-71 crop. Our meal is unpopular in major meal-consuming countries. While significant strides have been made in the past few years, varying rations of rapeseed meal are still recommended for different animals. Until technology overcomes the high fibre and glucosinolate problem, it will not be fully interchangeable with soybean meal.

## CHAPTER 7

### PRODUCTION, TRADE AND APPARENT CONSUMPTION OF OIL AND MEAL BY COUNTRY OR REGION -----

#### (1) UNITED STATES

##### (a) Conclusion

The United States dominates the world oils and fats market. As the leading exporter, no analysis was considered on apparent consumption because of minimal soft oilseed and oil imports. While domestic consumption has been and will continue to increase, the domestic supplies and availabilities will compensate this rising demand. Although, this increasing domestic demand has recently affected export availabilities of soybeans.

Because of the expected lower export availability of soybeans, the U.S.D.A. is encouraging larger soybean plantings on land normally used for corn production. On the other hand, increasing production of competing vegetable oils in other areas of the world will provide competition to soybean oil.

The U.S. import tariff on vegetable oils and meal has prevented significant sales of Canadian rapeseed by-products. There have been sales of rapeseed meals into the United States. The continuity of these rapeseed meal imports is doubtful unless other domestic competing meals and feedstuffs are in severe shortage or uncompetitively priced.

The fact that most developed countries give duty-free or fixed duty treatment to U.S. soybeans is most unusual in today's world markets. Thus, unlike most agricultural commodities, soybeans practically fit the classical definition of a free trade commodity.

##### (b) Oilseed Production

Soybeans, cottonseed and groundnuts are the

three main oilseeds grown domestically.

Since the early 1950's, the growth of soybean output has been phenomenal. The level of soybean production is greatly influenced by the government price support program. The significant feature of the price support for soybeans and other oilseeds is that the Commodity Credit Corporation (C.C.C.) will loan the producer a value corresponding to the support price and take the soybeans as collateral. The producer can then redeem the loan any time up to the maturity date, or deliver the soybeans at maturity in full satisfaction of the loan, regardless of the market price. Usually the market price for soybeans is above the support price, so the government-held soybeans are small. In 1968, the government-held soybeans were at an all-time high, so the price support was reduced from \$2.50 per bushel to \$2.25 per bushel in early 1969. This reduction in the loan rate stimulated the use of soybeans since they were now more competitive with other interchangeable oils and meals plus other protein foods. Expanding livestock production in many regions of the world has enhanced the demand for soybean meal. The demand for the meal is greater than the oil. To dispose of the surplus soybean oil, Public Law 480 provides a significant vehicle.

Public Law 480 became law in 1954. In the early 1950's, despite acreage allotments, the U.S. was troubled by agricultural surpluses created by increased yields. Many European countries and less developed countries lacked the international buying power to purchase these U.S. agricultural surpluses. Thus Public Law 480 was passed to enable foreign nations to purchase U.S. commodities with their own nonconvertible currencies. The key feature was that the commodity has to be in surplus supply in the United States. This reference to surpluses was deleted in 1965 and it became U.S. policy to use their total agricultural productivity to assist world food needs.

Due to the high costs of transportation plus storage plus processing, most countries do not purchase oilseeds under Public Law 480. However vegetable oils, primarily soybean and cottonseed, comprise a large share of P.L. 480 exports.

Cottonseed production is controlled by acreage allotments on cotton production. Cottonseed is a by-product of cotton. Consequently, the level of cottonseed available for crushing is dependent on quantity of cotton grown. The demand for cotton as a fibre has been declining due to severe competition from synthetic fibres. Since 1965, cottonseed production has been relatively stable at the 3.8 million metric ton level.

Production of groundnuts has been slowly increasing in spite of constant acreage allotments, as a result of higher yields. Most U.S. peanut production is used for direct human consumption contrary to the balance of world output, which is primarily for oil and meal purposes. Peanuts are crushed if their quality is too low for edible purposes. Also, the government-held surpluses through the price support program may also be crushed.

(c) Import Tariff Structure re Rapeseed, Oil and Meal

There are no quota restrictions on rapeseed or rapeseed products entering the United States, nor are there any U.S. domestic programs - e. g. price support programs - currently covering these commodities. There is provision, however, for such programs under Title III of the Agricultural Act of 1970, as well as for the subsidized export of rapeseed, rapeseed oil and meal both under P.L. 480 and under Commodity Credit Corporation programs.



<u>Tariff Item No.</u>	<u>Description of Product</u>	<u>Rate of Duty</u>
175.39	Rapeseed	1¢ /lb.
	Rapeseed oil: .....Rendered unfit for use as food:	
176.44	Imported to be used in the manufacture of rubber substitutes or lubricating oil	Free
176.45	Other rapeseed oil	1.8¢ /lb.
176.46	Other oil: Imported to be used in the manufacture of rubber substitutes or lubricating oil	0.45¢ /lb.
176.47	Other oil	2.4¢ /lb.
184.52	Soybean and other vegetable oil cake and oil-cake meal other (than linseed oil cake and oil- cake meal)	0.3¢ /lb.

## (2) EUROPEAN ECONOMIC COMMUNITY

### (a) Conclusion

The European Economic Community is the main importer of oilseeds, vegetable oil and meal. Because the increasing domestic demand cannot be fulfilled by domestic oilseed production, the E.E.E. probably has the most liberal oilseed tariff structure of any country. Also, since the E.E.C. consists of developed countries, the exporting oilseed country is assured of payment.

The prices of oilseeds are expected to remain high in 1972 due to the world shortage of soybeans. Cottonseed and groundnut export availabilities are expected to increase.

The rapeseed market will be very competitive due to the large increase in output from producing countries, mainly Canada. Rapeseed plantings in France are about equal to 1971. One source suggests the upper limit for rapeseed production in France is the present level of plantings (750,000 acres)<sup>(1)</sup>. To supplement the expected reduction in other interchangeable vegetable oils, the demand for rapeseed oil should increase. Even now to meet rapeseed oil consumption and export commitments, rapeseed and rapeseed oil must be imported.

Canadian rapeseed exports to the E.E.C. will likely increase with the anticipated increase in rapeseed oil demand. With the availability of low erucic acid rapeseed in 1972, Canada should be a favoured import country.

The existent Common Agricultural Policy (C.A.P.) provides deficiency payments to producers and incentives to crushers. This Policy plus the import tariffs and export subsidies, discourage sales of finished oilseed goods to the E.C.C..

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(1) Department of Industry, Trade and Commerce, Report of the Canadian Low-Erucic Acid Rapeseed Mission to: Japan; Italy; France, The Netherlands; and the United Kingdom, November 12 - December 2, 1971.

However, the growing internal disenchantment of the producer subsidies, which accrue mainly to France and West Germany, may force some alterations in C.A.P. Also, the countries participating in the G.A.T.T. negotiations are expected to provide pressure to lower the import tariffs of some agricultural products. There is also a growing concern about the level of fatty acids in marine oils. If the E.E.C. countries were to eliminate the use of marine oil from their margarine, shortening and cooking oils, vegetable oils would supplant the marine oils.

The demand for meals has grown rapidly in the E.E.C. Unless crushing capacity growth coincides, meal imports could occur in the future. Rapeseed meal enters duty-free.

The E.E.C. may offer export markets for Canadian rapeseed oil and meal in the coming year due to the expected internal shortages. Particularly the lack of soybeans for crushing will probably create a meal deficit.

(b) Production, Trade and Apparent Consumption

The proportion of rapeseed and oil imports increased markedly between 1965-66 and 1969-70. Coupled with the increasing demand for rapeseed oil, the high internal price maintained by deficiency payments has induced expanded domestic production. The French output of rapeseed increased from 317,100 metric tons in 1966 to 567,000 metric tons in 1970. The West German crop more than doubled during this period from 98,700 metric tons to 185,000 metric tons<sup>(1)</sup>. The production of rapeseed can be susceptible to yearly variation as it is a winter crop. Poor production years and periods preceding the new harvest offer the main opportunities for importing foreign rapeseed. In September, 1971, the E.E.C. imposed border taxes on Canadian rapeseed entering West Germany

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(1) U.S.D.A., Foreign Agriculture Circular, February, 1971.

and the Benelux countries to compensate currency changes in these countries. During the first six months of the 1971-72 crop year, these border taxes effectively reduced the imports of Canadian rapeseed to 7.5 million bushels from 8.6 million bushels sold during the same period of the 1970-71 crop year. This border tax was lifted February 1, 1972.

## APPARENT CONSUMPTION OF RAPESEED OIL AND MEAL

### E. E. C.

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 metric tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	193.2	322.5	
<u>Imports</u>			
-Oil Equivalent	112.8	140.5	
-Oil	<u>32.0</u>	<u>62.3</u>	
Total	338.0	525.3	
<u>Exports</u>			
-Oil Equivalent	55.2	98.0	
-Oil	<u>27.3</u>	<u>83.2</u>	
Total	82.5	181.2	
APPARENT CONSUMPTION	255.5	344.1	or 5.8% annual increase
<u>MEAL</u>			
<u>Production</u>	319.0	438.0	
<u>Imports</u>	<u>113.7</u>	<u>142.2</u>	
Total	432.7	580.2	
<u>Exports</u>	<u>100.5</u>	<u>193.9</u>	
APPARENT CONSUMPTION	332.5	386.3	or 2.7% annual increase



Soybeans are by far the major type of oilseed imported. Since the demand for the soybean meal has been greater than for the oil by-product, the E. E. C. exports soybean oil. No soybeans are grown in these countries.

APPARENT CONSUMPTION OF SOYBEAN OIL AND MEAL  
E. E. C.

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Imports</u>			
-Oil Equivalent	479.0	722.2	
-Oil	<u>35.2</u>	<u>135.9</u>	
Total	514.2	858.1	
<u>Exports</u>	<u>-</u>	<u>177.4</u>	
APPARENT CONSUMPTION	514.2	680.7	or 5.4% annual increase
<u>MEAL</u>			
<u>-Production</u>	2,071.0	3,201.0	
<u>-Imports</u>	<u>1,597.9</u>	<u>2,744.2</u>	
Total	3,668.9	5,945.2	
<u>Exports</u>	<u>350.8</u>	<u>691.7</u>	
APPARENT CONSUMPTION	3,318.1	5,253.5	or 9.7% annual increase

Historically, groundnut oil has been the favoured soft oil. The importance of the groundnut oil stems primarily from the import preferences granted to France's former African colonies and other African countries. These African countries as a whole, are the principal exporters of groundnuts and groundnut oil. For the past few years, the imports of groundnuts and groundnut oil and meal declined due to smaller crops in the major producing areas of Africa.

APPARENT CONSUMPTION OF GROUNDNUT OIL AND MEAL  
E. E. C.

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	3.1 <sub>(1)</sub>	1.8	
<u>Imports</u>			
-Oil Equivalent	358.5	291.4	
-Oil	<u>235.5</u>	<u>228.1</u>	
Total	597.1	521.3	
<u>Exports</u>			
-Oil Equivalent	6.2	5.0	
-Oil	<u>27.9</u>	<u>34.6</u>	
Total	34.1	39.6	
APPARENT CONSUMPTION	563.0	481.7	or 2.4% annual decrease
<u>MEAL</u>			
- <u>Production</u>	374.0	290.0	
- <u>Imports</u>	<u>408.3</u>	<u>403.1</u>	
Total	782.3	693.1	
<u>Exports</u>	<u>113.8</u>	<u>46.2</u>	
APPARENT CONSUMPTION	668.5	646.9	or .5% annual decrease

(1) 1966 figure only

Of the 1969-70 average imports of oilseeds, groundnut imports accounted for 11% compared to soybean imports of 67%.

To supplement the declining groundnut imports, the apparent consumption of sunflowerseed and sunflowerseed oil have approximately doubled. The majority of sunflowerseed is imported into Italy.

APPARENT CONSUMPTION OF SUNFLOWERSEED OIL AND MEAL  
E. E. C.

	<u>1965-66 Average</u>	<u>1969-70 Average</u>
	(1,000 Metric Tons)	
<u>OIL</u>		
<u>Domestic</u> - oil equivalent	10.1	19.8
<u>Imports</u>		
-Oil Equivalent	55.9	121.7
-Oil	<u>104.2</u>	<u>292.6</u>
Total	170.2	434.1
<u>Exports</u>		
-Oil Equivalent	1.5	10.7
-Oil	<u>-</u>	<u>85.3</u>
Total	1.5	96.0
APPARENT CONSUMPTION	168.7	338.1 or 16.7% annual increase
<u>MEAL</u>		
<u>Production</u>	44.0	103.0
<u>Imports</u>	<u>262.6</u>	<u>321.5</u>
Total	306.6	424.5
<u>Exports</u>	<u>15.0</u>	<u>20.1</u>
APPARENT CONSUMPTION	291.6	404.4 or 6.4% annual increase

Cottonseed and cottonseed oil have a minor share of the E. E. C. edible vegetable oil market.

Other significant imported vegetable oil materials and oils are copra, palm and palm kernels. These oils, plus groundnut, are the main vegetable oils utilized in margarine, shortening and cooking oil manufacture. Fish oil is also used in these products.

In the overall world market, these hard oils will offer stronger competition to the soft oils as the net export availabilities are expected to increase, particularly palm oil. Palm plantations in Malaysia have greatly expanded since the late 1960's and the impact of these trees will probably start in 1972. Also in 1970, the E. E. C. reduced the duty on imported palm oil from 9% to 6%. This reduction may affect the African Associated States and the Malagasy Republic (A. A. S. M.). Palm oil originating from A. A. S. M. enters the E. E. C. duty-free.

The total availability of oilseed meals increased 32% during the 1965-70 period. Soybean meal is the dominate meal, although rapeseed and sunflowerseed are gaining in importance.

The fast rising demand for soybean meal is the result of expanded livestock numbers to provide larger meat supplies required domestically. This expanding livestock production is utilizing high-protein rations. High grain prices further stimulated the use of protein meal, especially soybean as fishmeal and peanut meal were in short supply. Fish meal and linseed meal were second and third respectively in utilization.

Soybean availabilities are expected to decline in 1972. To meet expected demand for soybean meal in E. E. C., the deficit will have to be filled by competitive meals.



# TOTAL AVAILABILITY OF OILSEED MEALS - E.E.C.

1966 - 1970<sup>(1)</sup>

MEAL	1966	1967	1968	1969	1970
	(1,000 metric tons)				
Soybean	3,773.6	4,029.3	3,897.9	4,504.2	6,001.9
Cottonseed	367.7	331.8	343.7	419.4	382.9
Sunflowerseed	386.4	402.6	414.9	383.5	425.3
Groundnut	787.7	764.6	751.5	665.3	627.5
Rapeseed	281.5	257.2	337.7	387.0	384.8
Copra	577.2	549.4	512.9	559.4	573.4
Palm Kernel	351.1	280.3	278.6	299.7	311.8
Linseed	667.2	540.7	533.8	654.2	758.5
Oilseeds NES	466.5	370.5	421.2	568.4	635.1
Total Vegetable	7,658.9	7,526.4	7,492.2	8,441.1	10,101.2
Fish	830.4	902.4	1,014.2	1,025.2	899.5
Total Supplies	8,489.3	8,428.8	8,506.4	9,466.3	11,000.7

(1) Preliminary

SOURCE: Oil World - Semi Annual - November, 1971.

(c) Import Tariff Structure for Rapeseed, Oil and Meal

Duties shown apply to products imported into any member states from all countries which are not members of nor associated with the E. E. C..

<u>Tariff Item</u>	<u>Rate of Duty</u>
Rapeseed Oil (Crude) 15.07CI(cc)	5%
Rapeseed Oil (Refined) 15.07CII(BB)	8%
Rapeseed, Meal 23.04. B	Free

Value for Duty Purposes

Duty is levied on the C.I. F. value.

The C.I. F. value of the goods is the cost, insurance, freight and all charges and expenses up to:

- (a) on importations by sea - the port in which the goods are discharged or trans-shipped;
- (b) on importations by air - the point at which the goods cross the Community frontier.

Taxes

In addition to the duty shown above, importations of these products are subject to the following sales tax which is calculated on the duty-paid value, i. e., the C.I. F. value plus the amount of the duty. (Domestic production is subject to the same rate of tax).

France	7.5%
Germany	5.5%
Italy	6%
Netherlands	4%
Belgium	6%
Luxembourg	4%

Import Controls

This product is subject to import control.

(3) UNITED KINGDOM

(a) Conclusion

The export potential in the United Kingdom is expected to continue after this country enters the E.E.C., as it is doubtful that the E.E.C. can fulfill the new member's oil and meal demands.

While the agricultural policies of the E.E.C. encourage imports of rapeseed only, the existing rapeseed crushing facilities in the E.E.C. limit the volume of rapeseed that can be processed plus the domestic E.E.C. rapeseed production is approaching the maximum level because of the scarcity of available land. Also, the U.K. crushers are geared for soybean rather than rapeseed crushing.

In view of these factors, the United Kingdom will probably continue to expand their imports of Canadian rapeseed oil. Although, increased competition from the larger export availabilities of palm oil will exist in this market. Palm oil is used extensively in margarine.

If marine oil utilization should be significantly reduced due to the level of fatty acids, increased vegetable oil supplies may have to be imported.

The future imports of rapeseed meal will expand as the existing tariff structure of the E.E.C. permits duty-free access. Also, the rapeseed meal production in the E.E.C. probably can not meet U.K. requirements.

(b) Production, Trade and Apparent Consumption

Until 1970, the increase in consumption of vegetable oils was not significant in the United Kingdom. While certain soft oils - soybean, sunflowerseed and rapeseed - increased during the 1965-66 to 1969-70 period, the favourable supply and price of animal fats and marine oils discouraged other vegetable oil consumption until 1970. The shortage of marine oil and reduced purchases of animal fats and butter caused appreciable gains in vegetable oil imports in 1970.

During the 1965-66 to 1969-70 period, apparent consumption of rapeseed oil increased 21% annually. Most of the rising demand requirements were met through imports as the domestic production of rapeseed is minimal.

# APPARENT CONSUMPTION OF RAPESEED OIL AND MEAL

## UNITED KINGDOM

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1, 000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	2.3	4.7	
<u>Imports</u>			
-Oil Equivalent	16.7	25.3	
-Oil	<u>.2</u>	<u>13.4</u>	
Total	19.2	43.4	
<u>Exports</u>			
-Oil	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	19.2	43.4	or 21.0% annual increase
<u>MEAL</u>			
<u>Production</u>	21.3	39.0	
<u>Imports</u>	<u>71.6</u>	<u>82.1</u>	
Total	92.9	121.1	
<u>Exports</u>	<u>-</u>	<u>.3</u>	
APPARENT CONSUMPTION	92.9	120.8	or 5.0% annual increase

Similar to the E.E.C. countries, soybeans and soybean oil are principal imports. The majority of soybeans originate from the United States, although only a small proportion are shipped directly to the United Kingdom. Transshipments of soybeans, from The Netherlands and secondly from Canada, comprise the largest proportion of these imports. At present, there are only three crushers operating in the United Kingdom. These crushers have converted from rapeseed to soybeans due to the availability of cheaper rapeseed oil imports.



# APPARENT CONSUMPTION OF SOYBEAN OIL AND MEAL

## UNITED KINGDOM

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OILS</u>			
<u>Imports</u>			
-Oil equivalent	51.5	62.1	
-Oil	<u>19.4</u>	<u>43.3</u>	
Total	70.9	105.4	
<u>Exports</u>			
-Oil	<u>1.0</u>	<u>.5</u>	
APPARENT CONSUMPTION	69.9	104.9	or 8.3% annual increase
<u>MEAL</u>			
<u>Production</u>	195.5	238.0	
<u>Imports</u>	<u>231.9</u>	<u>197.4</u>	
Total	427.4	435.4	
<u>Exports</u>	<u>.1</u>	<u>2.4</u>	
APPARENT CONSUMPTION	427.3	433.0	or .2% annual increase

The apparent consumption of cottonseed, on an oil equivalent basis, has been declining since 1966. While cottonseed oil imports, per se, were larger in 1970, the 1969-70 average was below the 1965-66 average.

## APPARENT CONSUMPTION OF COTTONSEED OIL AND MEAL

### UNITED KINGDOM

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Imports</u>			
-Oil Equivalent	12.3	1.9	
-Oil	<u>34.6</u>	<u>26.6</u>	
Total	46.9	28.5	
<u>Exports</u>			
	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	46.9	28.5	or 6.5% annual decrease
<u>MEAL</u>			
<u>Production</u>			
	54.9	10.0	
<u>Imports</u>	<u>232.9</u>	<u>202.1</u>	
Total	287.8	212.1	
<u>Exports</u>	<u>****</u>	<u>.3</u>	
APPARENT CONSUMPTION	287.8	211.8	or 4.4% annual decrease

\*\*\*\* negligible

Due to the world shortage of groundnuts, the apparent consumption of groundnut oil declined. During 1970, none of the groundnuts imported were actually converted to groundnut oil. Consequently, larger imports of Nigerian oil were made in 1970. The expanded world output of groundnuts and oil, expected in 1972, may improve the consumption level in the United Kingdom.

## APPARENT CONSUMPTION OF GROUNDNUT OIL AND MEAL

### UNITED KINGDOM

	<u>1965-66 Average</u>	<u>1969-70 Average</u>
	(1,000 Metric Tons)	
<u>OIL</u>		
<u>Imports</u>		
-Oil Equivalent	37.7	(1)
-Oil	<u>86.4</u>	<u>90.5</u>
Total	124.1	90.5
<u>Exports</u>		
-Oil	<u>2.6</u>	<u>2.2</u>
APPARENT CONSUMPTION	121.5	88.3 or 4.6% annual decrease
<u>MEAL</u>		
<u>Production</u>	30.2	2.5
<u>Imports</u>	<u>430.9</u>	<u>365.9</u>
Total	461.1	368.4
<u>Exports</u>	<u>.1</u>	<u>.3</u>
APPARENT CONSUMPTION	461.0	368.1 or 3.4% annual decrease
(1)	Imported groundnuts were not crushed but were used for other edible purposes.	

Until 1969, the growth rate in sunflowerseed oil imports was very striking. The shortage of sunflowerseed combined with a high price reduced 1970 purchases of oil to 34,200 metric tons from a high of 99,500 metric tons in 1969. From the averaged figures in the below table, this decrease is not evident.

# APPARENT CONSUMPTION OF SUNFLOWERSEED OIL AND MEAL

UNITED KINGDOM			
	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Imports</u>			
-Oil	3.8	66.9	
<u>Exports</u>			
-Oil	-	-	
APPARENT CONSUMPTION	3.8	66.9	or 27.7% annual increase
<u>MEAL</u>			
<u>Imports</u>	90.7	84.6	
<u>Exports</u>	****	.1	
APPARENT CONSUMPTION	90.7	84.5	or 1.1% annual decrease
****negligible			

Coconut, palm and palm kernel oil comprised about half the vegetable oil imports into the United Kingdom. Palm oil is used extensively in margarine and shortening manufacture.

Growing imports of marine oil contributed about one-third of the total supplies of oils and fats in the United Kingdom. In 1970, the utilization of marine oil in margarine manufacturing equalled the total vegetable oils used. Marine oil input was larger than vegetable oil for shortenings.



OILS AND FATS USED IN MARGARINE AND SHORTENING  
MANUFACTURE IN UNITED KINGDOM - 1965 and 1970

	Vegetable	Marine	Animal	Total
	(millions of pounds)			

Margarine

1965	223	249	123	595
1970	281	279	52	612

Shortening

1965	110	120	79	310
1970	109	140	53	302

SOURCE: U.S.D.A., Foreign Agriculture Circular

The availability of oilseed meals declined marginally over the 1965-66 to 1969-70 period. This decline was created through decreased domestic crushing. While livestock numbers have been increasing, the availability of cheap feed grains discouraged meal utilization. Entry into the E.E.C. may alter this favoring of feed grains as the price of feed grain is significantly higher in the E.E.C., whereas the oilseed meal prices are approximately the same.

# TOTAL AVAILABILITY OF OILSEED MEALS - U.K.

1966 - 1970

	1966	1967	1968	1969	1970 (1)
	(1,000 metric tons)				
Soybean	410.8	348.6	349.1	368.5	497.5
Cottonseed	263.8	225.8	210.7	224.4	199.3
Sunflowerseed	112.0	132.1	119.0	91.8	77.3
Groundnut	401.1	368.5	395.8	361.8	374.4
Rapeseed	111.7	105.7	135.4	147.6	94.0
Copra	14.0	13.0	9.5	7.0	6.0
Palm Kernel	31.5	27.5	18.5	9.0	8.0
Linseed	77.5	64.9	51.7	45.6	42.5
Oilseeds NES	24.8	19.8	24.3	18.2	28.2
TOTAL VEGETABLE	1,447.2	1,305.9	1,314.0	1,273.9	1,327.2
Fish Meal	309.3	399.6	499.4	467.6	368.3
TOTAL	1,756.5	1,705.5	1,813.4	1,741.5	1,695.5

(1) Preliminary

SOURCE: Oil World Semi-Annual, November, 1971.

(c) Import Tariffs on Rapeseed Oil and Meal

<u>Tariff Number</u>	<u>Product</u>	<u>Rates of duty</u>	
		<u>Preference</u>	<u>Full</u>
15.07	Rapeseed oil	Free	15%
23.07	Rapeseed Cake and Meal	Free	10%

(4) OTHER WESTERN EUROPE - IRELAND, AUSTRIA,  
PORTUGAL, SPAIN, GREECE AND SWITZERLAND

(a) Conclusion

The apparent consumption of rapeseed oil was relatively stable during the study period 1965-66 to 1969-70. The rising demand for vegetable oil was primarily met by sunflowerseed oil and soybean oil. Like most countries striving to increase their industrial base, crushers have been encouraged to establish in Spain and Greece. Spain could offer a good market for rapeseed. The Spanish government program for promoting domestic rapeseed is a good indicator. Soybean imports are duty-free until domestic production is adequate to satisfy their crushers. Possibly this arrangement could be extended to rapeseed imports.

Apparently rapeseed oil is not considered a legal edible oil in Portugal. While rapeseed oil cannot be used alone or in blends, it can be used in processed products.

If the demand for vegetable oil other than olive oil expands, the existent domestic supply would have to be supplemented by imports, except in Spain. As rapeseed oil is interchangeable with other vegetable oil now utilized - soybean, cottonseed and sunflowerseed - there is no reason why rapeseed oil should be excluded from this market if the tariff structure is not prohibitive. The tariff levels for most countries were unavailable.

(b) Production, Trade and Apparent Consumption

This region is a net importer of oilseeds and oils, except for cottonseed oil and olive oil. Most cottonseed oil and olive oil originate in Spain and Greece.

Rapeseed oil and meal utilization has been relatively stable over the last six years. Production in Switzerland and Austria is around the 25,000 metric ton level. The subsidy program in Spain may increase production in this region. To decrease their dependence



on imported oilseeds - primarily soybeans - the Spanish government instituted a subsidy program for the domestic production of oilseeds in 1970. The subsidy program consists of 50% of seed value, 20% of fertilizer value, plus a support price per metric ton produced. As well as rapeseed production, this incentive is available for soybeans and sunflowerseed. In 1971, the Spanish government also began a new system of vegetable oil distribution. Crushers have bi-monthly quotas and certain industries have preference in receiving this vegetable oil output. Crushers are now committed to exporting all oil produced over their bi-monthly quota authorized for domestic marketing. Also the major users of soybean oil, the low-priced restaurants and potato chip industry, now have to utilize the more expensive sunflower seed oil. The soybean oil formerly used by this group is bottled and sold for household use, hospital and welfare institutions.

#### APPARENT CONSUMPTION OF RAPESEED OIL AND MEAL

OTHER WESTERN EUROPE			
	1965 - 66 Average	1969-70 Average	
	(1,000 Metric Tons)		
<u>OIL</u>			
Domestic - oil equivalent	9.8 <sub>(1)</sub>	9.8	
<u>Imports</u>			
-Oil Equivalent	3.7	1.6	
-Oil	15.0	15.4	
Total	28.5	26.8	
<u>Exports</u>			
-Oil	.3	1.1	
APPARENT CONSUMPTION	28.2	25.7	or 1.5% annual decrease
<u>MEAL</u>			
Production	7.0 <sub>(1)</sub>	9.5	
<u>Imports</u>			
Total	9.3	8.6	
	16.3	18.1	
<u>Exports</u>			
	-	-	
APPARENT CONSUMPTION	16.3	18.1	or 1.8% annual increase

(1) 1966 figure only

Spain is the only country importing soybeans (mainly from the United States) for domestic crushing. While the soybean oil is used in Spain, the meal component is more in demand. During the 1965-66 to 1969-70 period, total imports of soybean oil significantly dropped. Except for Spain and Greece, regional imports of soybean oil remained relatively static. Spain and Greece accounted for most of this import reduction due to increased crushing in Spain and the start-up of a soybean crushing plant in Greece.

The marked increase of soybean oil exports originate from Spain.

## APPARENT CONSUMPTION OF SOYBEAN OIL AND MEAL

OTHER WESTERN EUROPE			
	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Imports</u>			
-Oil Equivalent	88.1	210.0	
-Oil	<u>97.6</u>	<u>27.0</u>	
Total	185.7	237.0	
<u>Exports</u>			
-Oil	<u>3.1</u>	<u>67.5</u>	
APPARENT CONSUMPTION	182.6	169.5	or 1.2% annual decrease
<u>MEAL</u>			
<u>Production</u>	466.0 <sub>(1)</sub>	916.5	
<u>Imports</u>	<u>205.7</u>	<u>274.4</u>	
Total	671.7	1,190.9	
<u>Exports</u>	<u>-</u>	<u>71.5</u>	
APPARENT CONSUMPTION	671.7	1,119.4	or 11.1% annual increase
(1)	1966 figure only		

Greece is the major grower of cottonseed, then Spain. Over the past six years, Greece has been increasing her imports of cottonseed to meet internal demand, primarily for margarine and cooking oil. Planned expansion of cottonseed output and domestic availability of soybean oil should lower future cottonseed imports. The regional apparent consumption remained virtually static.

# APPARENT CONSUMPTION OF COTTONSEED OIL AND MEAL

OTHER WESTERN EUROPE			
	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	49.3 <sub>(1)</sub>	47.3	
<u>Imports</u>			
-Oil Equivalent	4.6	12.0	
-Oil	8.3	1.7	
Total	<u>62.2</u>	<u>61.0</u>	
<u>Exports</u>	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	62.2	61.0	or 0.3% annual decrease
<u>MEAL</u>			
<u>Production</u>	113.0 <sub>(1)</sub>	82.5	
<u>Imports</u>	53.0	14.6	
Total	<u>166.0</u>	<u>97.1</u>	
<u>Exports</u>	<u>3.9</u>	<u>21.0</u>	
APPARENT CONSUMPTION	162.1	76.1	or 8.8% annual decrease
(1)	1966 figure only		

Groundnut production in Greece and Spain remained static over the 1965-66 to 1969-70 period. The reduction in apparent consumption probably resulted in the overall world shortage of groundnuts and oil availabilities from the major exporting countries.

## APPARENT CONSUMPTION OF GROUNDNUT OIL AND MEAL

### ----- OTHER WESTERN EUROPE -----

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	5.7 (1)	5.3	
<u>Imports</u>			
-Oil Equivalent	89.5	82.8	
-Oil	<u>36.8</u>	<u>21.8</u>	
Total	132.0	109.9	
<u>Exports</u>			
-Oil	<u>1.1</u>	<u>3.0</u>	
APPARENT CONSUMPTION	130.9	106.9	or 3.1% annual decrease
<u>MEAL</u>			
<u>Production</u>	102.0 (1)	82.5	
<u>Imports</u>	<u>30.9</u>	<u>38.6</u>	
Total	132.9	121.1	
<u>Exports</u>	<u>13.6</u>	<u>.5</u>	
APPARENT CONSUMPTION	119.3	120.6	or 0.2% annual increase
(1)	1966 figure only		



The sharp growth in sunflowerseed and oil consumption is due to the almost five-fold increase. In 1966, Spain produced 33,000 metric tons of sunflowerseed. By 1970, this crop had grown to 152,000 metric tons<sup>(1)</sup>. The subsidy program of the Spanish government stimulated this expansion.

## APPARENT CONSUMPTION OF SUNFLOWERSEED OIL AND MEAL

OTHER WESTERN EUROPE			
	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalents	4.8 <sub>(1)</sub>	47.8	
<u>Imports</u>			
-Oil Equivalent	4.4	5.3	
-Oil	<u>61.4</u>	<u>75.6</u>	
Total	70.6	128.7	
<u>Exports</u>			
	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	70.6	128.7	or 13.7% annual increase
<u>MEAL</u>			
<u>Production</u>	9.0 <sub>(1)</sub>	28.0	
<u>Imports</u>			
Total	<u>.3</u>	<u>12.7</u>	
	9.3	40.7	
<u>Exports</u>			
	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	9.3	40.7	or 56.3% annual increase
(1)	1966 figure only		

(1) F.A.O. Production Yearbook, 1970

Olive oil has traditionally been the leading oil in Greece, Portugal and Spain. The production costs of olive oil are higher than other oilseeds. Also, the cyclical production pattern tends to inflate the price of this oil. Regardless of the price level however, a stable proportion of annual oil consumption will be olive oil as this consumer demand segment is inelastic. The price-influenced demand should be satisfied by other vegetable oils.

The promotion of livestock and poultry production is evident by the average 7.2% annual increase in meal availabilities. Livestock and poultry production greatly expanded in Spain and Greece, due to government actions. Next to soybean meal, fish meal is the second largest type used. Fishmeal imports declined over the 6-year period. Nearly all the soybean meal produced in this region is from Spain.

#### AVAILABILITY OF VEGETABLE OILSEED MEALS FOR CONSUMPTION IN OTHER WESTERN EUROPE COUNTRIES

1966-1970

	1966	1967	1968	1969	1970 <sup>(1)</sup>
	(1,000 Metric Tons)				
Soybean	801.0	841.6	978.8	1,188.8	1,331.8
Cottonseed	205.5	175.6	192.3	236.6	209.4
Groundnut	154.0	132.5	143.8	135.4	115.8
Sunflowerseed	15.4	18.1	18.5	40.1	41.2
Rapeseed	19.8	15.3	16.4	18.3	19.8
Copra	11.9	15.5	12.2	18.5	13.7
Palm Kernel	10.7	14.0	13.0	14.0	14.0
Linseed	64.3	56.2	51.6	50.7	61.6
Oilseeds NES	<u>44.5</u>	<u>51.8</u>	<u>50.2</u>	<u>70.4</u>	<u>96.4</u>
TOTAL	1,327.1	1,320.6	1,476.8	1,772.8	1,903.7

(1) Preliminary

SOURCE: Oil World Semi-Annual, November, 1971.

(c) Import Tariff on Rapeseed Oil and Meal

The only tariff available is Spain:

<u>Tariff Item</u>	<u>Rate of Duty</u>
Rapeseed Oil (Crude) (Item 15.07.A.2(a)4)	14.5%
Rapeseed Oil (Refined or Purified) (Item 15.07.A.2.(b)4)	
Rapeseed Meal (Item 23.04.B)	2%

Value for Duty Purposes

Duty is levied on the C.I.F. value.

The C.I.F. value of the good is the cost, insurance, freight and all charges and expenses up to the port of importation.

Taxes

In addition to the duty shown above, importations of these products are subject to the following sales tax which is calculated on the duty-paid value, i.e., the C.I.F. value plus the amount of the duty. (Domestic production is subject to the same rate of tax).

8%

Import Controls

This product is subject to import control.

(5) SCANDINAVIAN COUNTRIES - DENMARK, SWEDEN, NORWAY,  
FINLAND, ICELAND

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(a) Conclusion

Canada has exported rapeseed to Finland and Norway in the past and the level of future exports will probably depend on export availabilities from Sweden and Denmark.

On a regional basis, this area is a net exporter of rapeseed oil. The imports of the popular soybeans and soybean oil may be lower for the next few years due to lower world export availabilities. To supplement lower soybean oil availabilities for use in margarine, exports of rapeseed oil will probably decline. During the 1969-70 period, imports of soybean oil equalled rapeseed oil and oil equivalent exports. If soybeans per se are in short supply, rapeseed oil could be the oil imported to meet internal demand.

The region is a net importer of rapeseed meal, and if growth in consumption continues, no doubt rapeseed meal imports will rise. Even with the countries of Norway and Denmark entering the E.E.C. in 1973, this export potential should not be threatened. The Common Agricultural Policy of the E.E.C. permits rapeseed meal to enter duty-free.

During the study period, declining fish oil availabilities and the success the Scandinavian margarine manufacturers have had in promoting vegetable oil margarine as being more healthier discouraged fish oil use. Although larger fish oil supplies in 1972 may recapture an increased segment of this market.



(b) Production, Trade and Apparent Consumption

The major supplies of vegetable oils in the Scandinavian countries come from imported sources. Iceland is a very minor consumer of vegetable oils.

Rapeseed is grown in all these countries except Iceland. Production of rapeseed is slowly increasing. In 1965-66, 207,500 metric tons were produced and in 1969-70 this figure was 212,100 metric tons. There is a significant variation in production on a year-to-year basis though.

The decline in apparent consumption of rapeseed oil is probably due to the inroads of soybean oil. As rapeseed is an indigenous oilseed, which is not increasing significantly in production, the consumption of rapeseed oil will probably fluctuate with the availability of soybean oil in the short run. In the past, Swedish rapeseed oil has not been used for margarine due to undesirable compounds. A new rapeseed variety was sown in the fall of 1971, which may solve this problem.

# APPARENT CONSUMPTION OF RAPESEED OIL AND MEAL

## SCANDINAVIAN COUNTRIES

	<u>1965-66 Average</u>	<u>1969-70 Average</u> (1)
	(1,000 metric tons)	
<u>OIL</u>		
<u>Domestic</u> - oil equivalent	80.9	82.7
<u>Imports</u>		
-Oil Equivalent	2.2	2.7
-Oil	-	2.9
Total	83.1	88.3
<u>Exports</u>		
-Oil Equivalent	31.4	36.1
-Oil	15.5	18.5
Total	46.9	54.6
APPARENT CONSUMPTION	36.2	33.7 or 1.2% annual decrease
<u>MEAL</u>		
<u>Production</u>	79.0(2)	90.0
<u>Imports</u>	15.9	50.1
Total	94.9	140.1
<u>Exports</u>	.9	1.0
APPARENT CONSUMPTION	94.0	139.1 or 8.0% annual increase

(1) 1970 Preliminary

(2) 1966 figure only

Soybeans are the principal imported vegetable oilseed. Denmark, Norway and Finland import large quantities for crushing. While the meal component is in demand for feed purposes, the prime impetus for the growth in soybean imports is the expanded use of soybean oil in margarine manufacture. Soybean oil has gradually been replacing marine oil in margarine with the recent decline of the fish oil industry plus the promotional efforts of margarine manufacturers that an all-vegetable margarine is healthier for human consumption. The increase of 10% annually in apparent consumption of soybean oil equalled the growth of soybean oil margarine<sub>(1)</sub>.

#### APPARENT CONSUMPTION OF SOYBEAN OIL AND MEAL

SCANDINAVIAN COUNTRIES			
	1965-66 Average	1969-70 Average	(1)
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Imports</u>			
-Oil Equivalent	99.2	126.5	
-Oil	13.0	34.6	
Total	112.2	161.1	
<u>Exports</u>			
-Oil	43.0	51.1	
APPARENT CONSUMPTION	69.2	110.0	or 9.8% annual increase
<u>MEAL</u>			
<u>Production</u>	392.0 <sub>(2)</sub>	548.0	
<u>Imports</u>	430.1	377.8	
Total	822.1	925.8	
<u>Exports</u>	113.8	164.8	
APPARENT CONSUMPTION	708.3	761.0	or 1.2% annual increase

(1) 1970 Preliminary

(2) Based on 1966 figure only

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(1) U.S.D.A. Foreign Agriculture

While sunflowerseed oil consumption grew significantly, over half of the increase was due to Finland's emergence as an importer of sunflowerseed. The balance of the Scandinavian countries imported 11,000 metric tons of sunflowerseed of the total 27,900 metric tons during 1969-70. Finland's imports of sunflowerseed were made to offset lower soybean imports. Also in 1970, Finland banned imports of meal and oil. Thus to meet domestic demand for vegetable oils, its overall imports of oilseeds increased.

## APPARENT CONSUMPTION OF SUNFLOWERSEED OIL AND MEAL

### SCANDINAVIAN COUNTRIES

	<u>1965-66 Average</u>	<u>1969-70 Average</u> (1)	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Imports</u>			
-Oil Equivalent	-	16.9	
-Oil	<u>2.5</u>	<u>11.0</u>	
Total	2.5	27.9	
<u>Exports</u>	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	2.5	27.9	or 16.9% annual increase
<u>MEAL</u>			
<u>Production</u>	1.0(2)	13.0	
<u>Imports</u>	<u>155.0</u>	<u>106.2</u>	
Total	156.0	119.2	
<u>Exports</u>	<u>.1</u>	<u>.4</u>	
APPARENT CONSUMPTION	155.9	118.8	or 4.0% annual increase

(1) 1970 Preliminary

(2) 1966 figure only

It is expected that the decrease in apparent consumption of groundnut oil was due to the short world supply situation in recent years.

## APPARENT CONSUMPTION OF GROUNDNUT OIL AND MEAL

### ----- SCANDINAVIAN COUNTRIES -----

	<u>1965-66 Average</u>	<u>1969-70 Average</u> <sup>(1)</sup>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Imports</u>			
-Oil Equivalent	4.4	2.3	
-Oil	<u>3.7</u>	<u>3.1</u>	
Total	8.1	5.4	
<u>Exports</u>			
-Oil	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	8.1	5.4	or 5.6% annual decrease
<u>MEAL</u>			
<u>Production</u>	5.0 <sup>(2)</sup>	3.5	
<u>Imports</u>	<u>198.1</u>	<u>95.0</u>	
Total	203.1	98.5	
<u>Exports</u>	<u>1.7</u>	<u>.1</u>	
APPARENT CONSUMPTION	201.4	98.4	or 8.5% annual decrease
(1)	1970 Preliminary		
(2)	1966 figure only		

The total imports of coconut, palm and palm kernel oil increased during the last six years; particularly palm oil. Copra imports have declined, with the reduction of coconut oil in margarine manufacturing.



The utilization of oilseed meals is greatest in Denmark and Sweden. Soybean and rapeseed meal are the main meals produced but significant quantities of soybeans, cottonseed, groundnut and sunflowerseed meal are imported to meet domestic requirements. Rapeseed and groundnut meals have experienced the greatest growth during the 1965-66 and 1969-70 period.

Fish meal production is significant. The majority of this meal is exported with less than half of the production being available for domestic use. The apparent consumption of fish meal declined 26,300 metric tons between 1965-66 and 1969-70. While overall Scandinavian production declined during this period, fishmeal exports continued to rise.

(c) Import Tariffs for Rapeseed Oil and Meal

The only tariff duties available were from Sweden:

<u>Tariff Item</u>	<u>Rate of Duty</u>
Rapeseed Oil (Item 15.07.351/352)	Free
Rapeseed Meal (Item 23.04.170)	Free

Value for Duty Purposes

Duty is levied on the C.I.F. value.

The C.I.F. value of the goods is the cost, insurance, freight and all charges and expenses up to the port or point of importation.

Taxes

In addition to the duty shown above, importations of these products are subject to the following sales tax which is calculated on the duty-paid value, i.e., the C.I.F. value plus the amount of the duty. (Domestic production is subject to the same rate of tax).

17.6%

Import Controls

This product is not subject to import control.

(6) JAPAN

(a) Conclusion

Japan is one of the main importers of oilseeds and the annual demand should continue to increase at about 8%. Canada should gradually capture a larger share of this annual 250,000 metric ton import increment through enlarged rapeseed exports. From the recent Canadian Low-Erucic Acid Rapeseed Mission, which travelled to Japan in the latter part of 1971, "the future potential for rapeseed in Japan will be limited to a gradual increase from the present level up to a level of about 500,000 metric tons until such time as rapeseed meal use is fully accepted by the Japanese feed industry"<sup>(1)</sup>. At present, Canada exports about 300,000 metric tons to Japan. It would appear Australia will be competing for a share of Japanese rapeseed imports. The largest segment of annual oilseed requirements will continue to be soybeans due to the tremendous soybean meal demand.

In the short run, the potential of exporting rapeseed oil to Japan is prohibited due to the tariffs imposed to protect her domestic crushers.

Perhaps the most influential factor for favoring change in the present Japanese import tariffs will be the increasing tariffs erected in developed countries against Japanese manufactured goods. Obviously, if Japan wishes to continue exporting finished goods, she will have to further liberalize her import tariffs to permit her trading partners access for their manufactured products into Japan.

Eventually, Canadian rapeseed crushers may be able to secure an import quota for rapeseed oil, provided the viability of domestic Japanese crushers was not endangered.

Although rapeseed meal enters duty free, it will have to become fully interchangeable with soybean meal before an export potential is available in Japan. Canadian scientists are doing much to increase the use of this meal through research and seminars.

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(1) Department of Industry, Trade & Commerce, Report of the Canadian Low-Erucic Acid Rapeseed Mission to: Japan, Italy, France, The Netherlands and United Kingdom, November 12 - December 2, 1971.

(b) Production, Trade and Apparent Consumption

Japanese consumption of oils is greatly increasing due to popularity of Western-style salad dressings, mayonnaise and margarine. The acceptance of "take-out" restaurant foods such as potato chips and fried chicken require increasing amounts of vegetable cooking oils. Also, a greater concern for food sanitation causes more frequent changes of cooking oils.

Soybeans and rapeseed are the two main oilseeds grown in Japan. An unknown quantity of groundnuts is also produced. The production of soybeans decreased from 215,000 metric tons in 1965-66 to 130,500 metric tons in 1969-70. Similarly, rapeseed production declined from 110,100 metric tons to 39,100 metric tons during the same period. Through producer subsidies, Japan is currently attempting to encourage enlarged soybean and rapeseed crops on land diverted from rice production.

During the last six years, imports of oilseeds have risen by about 8% annually. A Japanese source suggests that the annual rate of increase in consumption of edible oil will continue at 8%(1). Therefore, the future growth of oilseed imports is expected to increase at the same rate to accommodate this rising consumption.

Actual usage of oilseeds for a specific year is unknown as statistics on opening and closing stocks are not compiled. Using the average availability of oilseeds in 1965-66 and 1969-70 to reflect the stock fluctuation, this average of 3.4 million metric tons can represent the average annual availability of oilseeds. To meet the 8% annual increase in consumption of vegetable oil, the oilseed requirements should expand 250,000 metric tons annually. Over 95% of this increase would be met through imports, unless Japan significantly increases domestic production of soybeans, rapeseed and groundnuts.

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(1) Y. Sakagushi, Nisshin Oil Mills Ltd., Toyko as presented at the International Rapeseed Conference, Ste. Adele, Quebec, September, 1970.

Rapeseed is second in oilseed utilization. Due to the domestic production, rapeseed oil is readily acceptable. Canada is the major supplier of seed imports. Mainland China and Poland also have sold small varying quantities in the past.

As part of the Japanese promotion in seeking new sources of import supply, the Japanese crushers have been investigating Australia as an alternate source of rapeseed. In October, 1971, 16,000 tons were purchased from Australia and this quantity will probably increase this year due to rapeseed contracts between Australia and Mitsubishi, a Japanese trading company.

No rapeseed oil has been imported due to the high tariff. Canada has successfully negotiated tariff reductions on the seed but not on the crude oil.

#### APPARENT CONSUMPTION OF RAPESEED OIL AND MEAL

J A P A N			
	1965-66 Average	1969-70 Average	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	42.9	15.2	
<u>Imports</u>			
-Oil Equivalent	61.0	123.3	
Total	103.9	138.5	
<u>Exports</u>			
-Oil	7.2	11.5	
APPARENT CONSUMPTION	96.7	127.0	or 5.2% annual increase
<u>MEAL</u>			
<u>Production</u> - meal equivalent	151.9	202.5	
<u>Imports</u>	-	-	
Total	151.9	202.5	
<u>Exports</u>	-	-	
APPARENT CONSUMPTION	151.9	202.5	or 5.6% annual increase

The increase in soybean imports has more than offset the declining domestic production between 1965 and 1970. Soybean demand is primarily for the meal to use in mixed feed stocks.

The traditional major supplier of soybeans is the United States with about 90% of the import market. Mainland China supplies most of the import balance. In recent years, Japan has been attempting to diversify her source of supplies. A team of Japanese scientists is developing a variety of soybeans suitable for growing in Thailand.

While a proportion of the available soybeans is used for direct human consumption, the percentage is unknown. In the apparent consumption figures in the below table, all available soybeans were converted to an oil equivalent basis and are consequently somewhat inflated.

#### APPARENT CONSUMPTION OF SOYBEAN OIL AND MEAL

##### J A P A N

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OILS</u>			
Domestic - oil equivalent	38.7	23.5	
<u>Imports</u>			
-Oil Equivalent	361.4	525.1	
-Oil	-	-	
Total	400.1	548.6	
<u>Exports</u>			
-Oil	5.3	8.3	
APPARENT CONSUMPTION	394.8	540.3	or 6.2% annual increase
<u>MEAL</u>			
Production - meal equivalent	1,756.2	2,407.7	
Imports	26.9	26.6*	
Total	1,783.1	2,434.3	
Exports	1.6	3.4	
APPARENT CONSUMPTION	1,781.5	2,430.9	or 6.1% annual increase

\*1969 figure only



Cottonseed appears to be the third largest oilseed imported. Most of the cottonseed imports came from African nations.

# APPARENT CONSUMPTION OF COTTONSEED OIL AND MEAL

## JAPAN

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	<u>(1,000 Metric Tons)</u>		
<u>OIL</u>			
<u>Imports</u>			
-Oil Equivalent	38.6	43.3	
-Oil	<u>3.3</u>	<u>2.7</u>	
Total	41.9	46.0	
<u>Exports</u>			
	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	41.9	46.0	or 1.6% annual increase
<u>MEAL</u>			
<u>Imports</u>			
-Meal Equivalent	166.6	186.7	
-Meal	<u>6.7</u>	<u>19.8</u>	
Total	173.3	206.5	
<u>Exports</u>			
	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	173.3	206.5	or 3.2% annual increase

Groundnut and sunflowerseed imports are increasing. While some groundnuts are grown domestically, the quantity is unknown. The acreage will probably increase somewhat with the riceland diversion program. The proportion of peanut availability used for direct human consumption is unknown.

Palm, coconut and palm kernel oil are popular in finished products such as margarine and shortening. Marine oil is also an important input into these commodities.

OILS AND FATS USED IN MARGARINE  
AND SHORTENING MANUFACTURE IN  
JAPAN - 1965 and 1970

	Vegetable	Marine	Animal	TOTAL
	(millions of pounds)			
Margarine and Shortening				
1965	61	79	104	249
1970	152	156	91	407

SOURCE: U.S.D.A. Foreign Agriculture Circular

Of the vegetable oils used in margarine and shortening, palm and coconut supply about one-third of the total, with soybean oil being the ~~next~~ most important single vegetable oil.

The enlarged imports of soybeans are primarily due to the ever-increasing demand for soybean meal. Remarkable growth has occurred in size of hog herds, although still small by North American standards. The broiler industry has had rapid growth during the past five years. Compared to other segments of the livestock industry, the increased beef production has been sluggish. However, Japan is attempting to expand beef production by turning large areas of previously unused mountain areas into grasslands.

Rapeseed meal is slowly being recognized as an animal feed. Traditionally because of poor processing, the meal was not suitable as feed and utilized mainly as a fertilizer. Primarily due to Canadian technical assistance, Japanese crushers now produce a rapeseed meal suitable for animal consumption. However, reluctance still exists on the part of feed manufacturers to use it in mixed feed stocks. Because it is not recognized as a feed additive on the part of the feed manufacturers, rapeseed meal is not eligible for a duty rebate from the Minister of Finance. This is mainly because the feed manufacturers feel the volume has not reached sufficient levels to apply for a rebate. In the case of soybean meal, the import tariff on soybeans is rebated if the meal is used in Japan.

(c) Import Tariff on Rapeseed Oil and Meal

	<u>Duty Rates</u>
<u>RAPESEED OIL</u>	
(1) Of an acid value exceeding 0.6	20 Yen/kg
(2) Other	28 Yen/kg
(Proposed rate 1972)	25 Yen/kg
<u>RAPESEED MEAL</u>	Free

Import permit required for both oil and meal -  
issued freely and without quantitative restriction on  
application to any approved bank.

(7) AUSTRALIA AND NEW ZEALAND

(a) Conclusion

Rapeseed oil and meal from Canada do not appear to have potential in Australia. Due to Australia's greatly increased rapeseed production, she will be a competitor with Canada in the export market.

In December, 1968, Canadian rapeseed was levied a further tariff increase to equal 40¢ (Australian) per gallon. At the urging of Australian farmers, temporary additional duties were put on some imported vegetable oils in 1970 - peanut, soybean, rapeseed, linseed, sunflowerseed, safflowerseed, cottonseed and corn oil. The additional duty is on a sliding scale basis and is equal to the amount by which the F.O.B. price of the imported oil is less than \$1.00/gallon (Australian). There is no temporary duty on top of the normal duty if the imported vegetable oil F.O.B. price is greater than \$1.00/gallon (Australian). This temporary additional duty virtually eliminates any export potential of Canadian rapeseed oil. Recently 7,200 tons of Canadian rapeseed were sold to Australia.

Since soybean meal dominates the Australian meal market, the existing domestic demand for rapeseed meal is relatively smaller and should be supplied via domestic crushing.

No vegetable oil and meal analysis was developed for New Zealand. The strength of the dairy industry, supported by restrictive regulations, virtually eliminates development of vegetable oils at present.

(b) Production and Trade

Until recently, Australia was viewed as an oilseed, oil and meal net importer. Complete self-sufficiency for some vegetable oils may be achieved in several years, if weather conditions are reasonably good. Australian production of oilseeds has been stimulated due to high world prices of oilseeds and edible oils plus the attempt to divert land from wheat production. Also, oilseed crushers raised guaranteed contract prices.

Record crops for rapeseed, sunflowerseed and soybeans are forecasted for 1972. While soybean production has markedly increased, imports are still required to meet the meal demands of poultry and hog producers. Soybean oil is used in cooking oil manufacture but is virtually non-existent in margarine.

In October, 1971, Australia exported the first significant quantities of rapeseed to Japan. Seventy percent of the salad oil manufactured is made from rapeseed oil but no rapeseed oil is used in margarine.

Cottonseed oil is a popular vegetable oil in Australia. Slightly more than half of the cottonseed oil is used in margarine manufacturing with most of the balance being an input for cooking oil. As the production has trended downward in the past few years, no doubt the more plentiful rapeseed and sunflowerseed oils will capture this market segment.

Sunflowerseed was previously imported into Australia until 1970. Due to tremendous increase in domestic sunflowerseed, U.S.D.A. reports a surplus of sunflowerseed oil. Some of the increased sunflowerseed is expected to be exported to Japan. Also, the first substantial export sale of vegetable oil was sunflowerseed. A 1,000 long tons of sunflowerseed oil was shipped to The Netherlands in 1971.

The production of margarine is controlled by law. This foodstuff is an important user of vegetable oils. If the laws limiting margarine production were relaxed, the growth rate of vegetable oil usage would increase. However, the strength of the dairy industry has prevented this to occur. Vegetable oil consumption is estimated to have a 6% annual growth rate<sup>(1)</sup>.

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(1) Statistics Canada, Oilseeds Review - Quarterly,  
Catalogue No. 22-006.



(8) SOUTH AFRICA

(a) Conclusion

South Africa does not offer a potential market for Canadian rapeseed oil and meal. The only oils presently imported are sunflowerseed, coconut and palm kernel. During periods of drought, increased oil imports were made to meet domestic demands. But this country does not appear to offer a regular vegetable oil outlet for exporters at present.

(b) Production and Trade

South Africa is a net exporter primarily through groundnuts and groundnut oil. Fish oil is the only other significant edible oil exported.

Prior to World War II, South Africa imported most of her vegetable oil requirements; mainly peanuts from India and other East Asia countries.

Through guaranteed market prices, the domestic production of groundnuts greatly increased. Now, the domestic supply of groundnuts plus sunflowerseed is normally more than adequate to meet internal demands. Thus, a good proportion of groundnuts and oil are exported. Exports are permitted by the Oilseed Control Board when domestic demand is fulfilled. Domestic crushers vary their annual groundnut purchases due to the competitive price and cheaper cost of production using domestic sunflowerseed. Consequently, exports of groundnuts and oil vary greatly from year to year.

Meal is not used very extensively for feeding. Most of the fish meal produced is exported.

(9) EASTERN EUROPE

(a) Conclusion

Eastern Europe is comprised of the following countries - Rumania, Czechoslovakia, East Germany, Yugoslavia, Poland, Bulgaria, Hungary and Albania. Albania does not appear in the import-export trade statistics, although some oilseed is produced domestically.

This region is a net importer of oilseeds, oils and meals to supplement domestic production. All of the soft oils are grown, with rapeseed and sunflowerseed being the dominant crops.

The production of sunflowerseed and rapeseed in Eastern Europe is subject to annual fluctuations - primarily due to climatic variations. Thus, some years oilseed supplies are deficient.

When domestic supply of vegetable oils is insufficient to meet internal demands, this region imports oil. Thus, there is probably potential during certain years to sell rapeseed oil if this area was developed by Canadians. In the long term, this region will probably increase oil imports as the existing per capita consumption is so low.

The internal demand for meal is going to grow tremendously. However, before Canadians have an opportunity, rapeseed meal would have to be fully interchangeable with soybean meal - which is highly demanded in all feed rations at present.

(b) Production, Trade and Apparent Consumption

Rapeseed is the second major oilseed produced in this region. Poland is the largest grower. While Poland has exported some rapeseed in the past, the government policy in the past few years has been to produce quantities sufficient to supply domestic needs with a small amount left over for export. The apparent consumption figures for the 1969-70 average are down significantly because of the extremely poor Polish rapeseed crop in 1969.

# APPARENT CONSUMPTION OF RAPESEED OIL AND MEAL

## EASTERN EUROPE

	<u>1965-66 Average</u> (1,000 Metric Tons)	<u>1969-70 Average</u>	
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	179.4 <sub>(1)</sub>	149.4	
<u>Imports</u>			
-Oil Equivalent	13.9	6.2	
-Oil	<u>-</u>	<u>-</u>	
Total	193.3	155.6	
<u>Exports</u>			
-Oil Equivalent	32.1	31.9	
-Oil	<u>14.5</u>	<u>36.3</u>	
Total	46.6	68.2	
APPARENT CONSUMPTION	146.7	87.4	or 6.7% annual decrease
<u>MEAL</u>			
<u>Production</u> - meal equivalent	262.2 <sub>(1)</sub>	218.3	
<u>Imports</u>			
-Meal Equivalent	20.3	9.1	
-Meal	<u>2.7</u>	<u>-</u>	
Total	285.2	227.4	
<u>Exports</u>			
-Meal Equivalent	46.9	46.6	
-Meal	<u>-</u>	<u>-</u>	
Total	46.9	46.6	
APPARENT CONSUMPTION	238.3	180.8	or 4.0% annual decrease

(1) 1966 figures only

While imports of soybeans increased slightly for domestic crushing, soybean oil imports declined with increasing internal production. Rumania is the largest grower of soybeans. The oil demand is not as great as the meal. Soybean oil is imported, mainly from the United States, when domestic oils are short of demand.

APPARENT CONSUMPTION OF SOYBEAN OIL AND MEAL  
EASTERN EUROPE

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic - oil equivalent</u>	5.8	13.0	
<u>Imports</u>	(1)		
-Oil Equivalent	17.6	22.5	
-Oil	<u>27.2</u>	<u>9.1</u>	
Total	50.6	44.6	
<u>Exports</u>	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	50.6	44.6	or 2% annual decrease
<u>MEAL</u>			
<u>Production - meal equivalent</u>	25.3	56.9	
<u>Imports</u>	(1)		
-Meal Equivalent	77.0	98.9	
-Meal	<u>74.2</u>	<u>173.8</u>	
Total	176.5	329.6	
<u>Exports</u>	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	176.5	329.6	or 14.5% annual increase
<hr/>			
(1)	1966 figure only		

Small quantities of cottonseed are grown in Albania, Bulgaria and Yugoslavia. Imports are probably supplied from Russia.

# APPARENT CONSUMPTION OF COTTONSEED OIL AND MEAL

## EASTERN EUROPE

	<u>1965-66 Average</u> (1,000 metric tons)	<u>1969-70 Average</u>	
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	10.4 <sub>(1)</sub>	7.8	
<u>Imports</u>			
-Oil Equivalent	3.8	2.2	
-Oil	-	8.8	
Total	14.2	18.8	
<u>Exports</u>	-	-	
APPARENT CONSUMPTION	14.2	18.8	or 5.4% annual decrease
<u>MEAL</u>			
<u>Production</u> - Meal equivalent	44.9 <sub>(1)</sub>	33.5	
<u>Imports</u>			
-Meal Equivalent	16.3	9.7	
-Meal	69.5	4.9	
Total	130.7	48.1	
<u>Exports</u>	27.6	-	
APPARENT CONSUMPTION	103.1	48.1	or 8.9% annual decrease

(1) 1966 figure only



The decline in groundnut imports likely resulted from the lower export availabilities from major exporters in 1970. Minimal quantities of groundnuts are produced in Eastern Europe.

## APPARENT CONSUMPTION OF GROUNDNUT OIL AND MEAL

EASTERN EUROPE		
	<u>1965-66 Average</u>	<u>1969-70 Average</u>
	(1,000 Metric Tons)	
<u>OIL</u>		
<u>Domestic</u> - oil equivalent	. 1 <sub>(1)</sub>	. 1
<u>Imports</u>		
-Oil Equivalent	34.7	6.6
-Oil	<u>-</u>	<u>-</u>
Total	34.8	6.7
<u>Exports</u>	<u>-</u>	<u>-</u>
APPARENT CONSUMPTION	34.8	6.7 or 13.5% annual decrease
<u>MEAL</u>		
<u>Domestic</u> - meal equivalent	. 2	. 2
<u>Imports</u>		
-Meal Equivalent	44.2	8.3
-Meal	<u>224.5</u>	<u>92.3</u>
Total	268.9	100.8
<u>Exports</u>	<u>-</u>	<u>-</u>
APPARENT CONSUMPTION	268.9	100.8 or 10.4% annual decrease

(1) 1966 figure only

Sunflowerseed is the major indigenous oilseed crop. While exports are significant, Eastern Europe countries still import sunflowerseed oil to meet internal demands.

# APPARENT CONSUMPTION OF SUNFLOWERSEED OIL AND MEAL

## EASTERN EUROPE

	<u>1965-66 Average</u> (1,000 Metric Tons)	<u>1969-70 Average</u>	
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	653.0 <sub>(1)</sub>	695.6	
<u>Imports</u>			
-oil equivalent	23.8	80.4	
-oil	<u>146.7</u>	<u>167.6</u>	
Total	823.5	943.6	
<u>Exports</u>			
-oil equivalent	75.2	115.2	
-oil	<u>63.8</u>	<u>219.8</u>	
Total	139.0	335.0	
APPARENT CONSUMPTION	684.5	608.6	or 1.9% annual decrease
<u>MEAL</u>			
<u>Domestic</u> - meal equivalent	549.1 <sub>(1)</sub>	585.0	
<u>Imports</u>			
-meal equivalent	23.8	96.9	
-meal	<u>22.1</u>	<u>23.5</u>	
Total	595.0	705.4	
<u>Exports</u>			
-meal equivalent	63.2	96.9	
-meal	<u>-</u>	<u>-</u>	
Total	<u>63.2</u>	<u>96.9</u>	
APPARENT CONSUMPTION	531.8	608.5	or 2.4% annual increase

(1) 1966 figures only

While vegetable oil consumption has declined in Eastern Europe over the past six years, the demand for meal has grown slightly. The future demand should grow markedly due to the aggregate governments' emphasis of increased livestock and poultry production. Soybean meal apparent consumption, has grown about 14.5% annually. One source suggests this growth of soybean meal will continue at 10% - 15% per annum. (1) The producers of livestock and poultry are using modern feed techniques similar to the United States. To promote the use of soybean meal in feed rations, the United States supplied technical information on the use of soybean meal in production of balanced feed formulations.

Groundnut meal from India and fish meal from Peru are also used extensively in some countries.

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(1) U.S.D.A. Foreign Agriculture

(10) U.S.S.R.

(a) Conclusion

In the past few years, Russia has emerged as a major oilseed exporter through the enlarged sunflower-seed and oil exports.

Prospects for selling rapeseed oil to Russia are minimal due to her reasonably self-sufficiency.

However, the huge meal requirements in the future appear similar to other Eastern European countries. Until rapeseed meal is acceptable with sunflowerseed meal though, small opportunity exists for rapeseed meal imports.

(b) Production, Trade and Apparent Consumption

Russia is the world's largest producer of sunflowerseed and cottonseed. The marked increase in sunflowerseed and oil exports between 1966-70, caused a significant impact on the world oils and fats market.

Minimal quantities of rapeseed are grown in Russia and no exports or imports of seed, oil or meal exist.

Soybeans were the third largest oilseed crop in Russia, with production about twice the size of Canada. The output is primarily consumed internally. Also, the level of output was relatively static throughout the 1965-66 to 1969-70 period.

# APPARENT CONSUMPTION OF SOYBEAN OIL AND MEAL

U. S. S. R.

	<u>1965-66 Average</u> (1,000 Metric Tons)	<u>1969-70 Average</u>	
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	105.5 <sub>(1)</sub>	100.6	
<u>Imports</u>			
-Oil Equivalent	8.4	-	
-Oil	<u>-</u>	<u>-</u>	
Total	113.9	100.6	
<u>Exports</u>	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	113.9	100.6	or 1.9% annual decrease
<u>MEAL</u>			
<u>Domestic</u> - meal equivalent	462.9 <sub>(1)</sub>	441.6	
<u>Imports</u>			
-Meal Equivalent	<u>36.9</u>	<u>-</u>	
Total	499.8	441.6	
<u>Exports</u>	<u>12.5</u>	<u>3.0</u>	
APPARENT CONSUMPTION	487.3	438.6	or 1.7% annual decrease

(1) 1966 figure only



Between 1965 and 1969, cottonseed production was fairly stable. In 1970, production increased slightly less than one-quarter to 4.6 million metric tons from 3.8 million metric tons. This increased output was primarily retained for domestic consumption, as is evident from the apparent consumption figures below.

APPARENT CONSUMPTION OF COTTONSEED OIL AND MEAL  
U. S. S. R.

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	526.7	664.6	
<u>Imports</u>	(1)		
-Oil	-	2.0	
Total	526.7	666.6	
<u>Exports</u>			
-Oil Equivalent	-	6.0	
-Oil	30.2	30.6	
Total	30.2	36.6	
APPARENT CONSUMPTION	496.5	630.0	or 4.5% annual increase
<u>MEAL</u>			
<u>Domestic</u> - meal equivalent	2,271.5	2,866.3	
<u>Imports</u>	(1)		
-Meal	-	10.5	
Total	2,271.5	2,876.8	
<u>Exports</u>			
-Meal Equivalent	-	25.8	
-Meal	116.2	116.0	
Total	116.2	141.8	
APPARENT CONSUMPTION	2,155.3	2,735.0	or 4.5% annual increase

(1) 1966 figure only

Groundnut production is insignificant. This commodity is imported to meet internal needs. Compared to the consumption of cottonseed oil and sunflowerseed oil, groundnut oil is minor.

APPARENT CONSUMPTION OF GROUNDNUT OIL AND MEAL  
----- U. S. S. R. -----

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	-	.4	
<u>Imports</u>			
-Oil Equivalent	<u>10.5</u>	<u>12.3</u>	
Total	10.5	12.7	
<u>Exports</u>	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	10.5	12.7	or 3.5% annual increase
<u>MEAL</u>			
<u>Domestic</u> - meal equivalent	-	.6	
<u>Imports</u>			
-Meal equivalent	<u>13.4</u>	<u>15.6</u>	
Total	13.4	16.2	
<u>Exports</u>	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	13.4	16.2	or 3.5% annual increase

The production of sunflowerseed peaked in 1968. Between 1961 and 1966 total area devoted to sunflowerseed expanded along with increased yields and oil content. Output declined between 1969 and 1971 primarily due to unfavourable weather.

Recently, the Soviet government announced plans to increase annual production to 927,000 tons by 1975 (1). If this plan is successful, this planned increase in output would be still noticeably smaller than the 1966-70 period. Thus, expected gains in export would probably be less than the previous 5-year period. This increased production is planned from more or less the same acreage. Better seed, more fertilizer and increased use of machinery and equipment is expected to meet the output goal. Seed varieties with 53% - 54% oil content will be used.

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(1) U.S.D.A. Foreign Agriculture

# APPARENT CONSUMPTION OF SUNFLOWERSEED OIL AND MEAL

U . S . S . R .

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	2,706.0 <sub>(1)</sub>	2,740.8	
<u>Imports</u>			
-Oil Equivalent	<u>11.0</u>	<u>-</u>	
Total	2,717.0	2,740.8	
<u>Exports</u>			
-Oil Equivalent	49.7	107.4	
-Oil	<u>324.3</u>	<u>503.6</u>	
Total	374.0	611.0	
APPARENT CONSUMPTION	2,343.0	2,129.8	or 1.5% annual decrease
<u>MEAL</u>			
<u>Domestic</u> - meal equivalent	2,275.5 <sub>(1)</sub>	2,304.7	
<u>Imports</u>			
-Meal Equivalent	<u>-</u>	<u>-</u>	
Total	2,275.5	2,304.7	
<u>Exports</u>			
-Meal Equivalent	41.8	90.3	
-Meal	<u>106.0</u>	<u>90.0</u>	
Total	147.8	180.3	
APPARENT CONSUMPTION	2,127.7	2,124.4	change negligible

(1) 1966 figure only

The imports of copra, palm kernel and coconut oil are blended with other vegetable oils in the manufacture of margarine.

Sunflowerseed meal presently is the main source of protein supplements used to feed expanding livestock numbers. Future meal exports are expected to decline due to the rising internal requirements. While the historical apparent consumption of meal has not grown appreciably, Russia has planned major livestock expansion before 1975.

(11) COMMUNIST ASIA

(a) Conclusion

The Communist Asia region contains the following countries: Mainland China, North Korea, Mongolia and North Vietnam. Mainland China was the only country participating in world oil trade.

While Mainland China produces large volumes of oilseeds, less than 5% of any specific crop enters world markets. The domestic demand is immense. While population growth has been slowed, relatively-speaking each 1% increase adds more than 8 million people.

Canada will be the participating country in this year's annual trade show. Once a year a foreign country is asked to display their products. Oilseeds are indicated as one of the potential exportable products from Canada. However, as rapeseed crushing is established in Mainland China, any imports would probably be rapeseed rather than processed by-products.

(b) Production and Trade

No imports of oilseeds, oils or meals enter Mainland China. Exports of soybeans, groundnuts and rapeseed and their respective oils are made in varying volumes. Cottonseed oil is also exported. The level of trade appears to follow production.

This country is the main supplier of oilseeds and oils to the Hong Kong market. In fact, Hong Kong purchases 40% - 50% of her total agricultural commodities from this exporter. Japan has also purchased soybeans from Mainland China, but in relatively small quantities compared to her overall soybean imports.

Since 1963, rapeseed production has been increasing. It is rotated with rice. To facilitate this double-cropping, the seed is raised in nurseries then transplanted after the autumn rice crop is harvested.



Soybeans are the most important oilseed crop. During the 1960's, however, the level of output remained fairly stable.

While groundnut acreage has not expanded, output has grown because of higher yields.

During the 1960's, Mainland China's level of exports was lower than the previous decade. Apparently, the government is adding emphasis to oilseed production so export availabilities may rise. Also, this country gives priority to meeting export commitments of oilseed and oilseed products, then the remaining balance is for domestic consumption.

(12) CENTRAL AMERICA AND MEXICO

(a) Conclusion

The only potential user of Canadian rapeseed oil and meal is Mexico.

Central America is virtually self-sufficient in vegetable oils while meals are exported. The expected future production of cottonseed oil alone will probably meet edible oil requirements. While some imports may occur due to consumer preference, Central America is capable of supplying its vegetable oil needs.

Mexico is deficient in vegetable oils. While production has expanded, rapidly rising domestic demand coupled with extremely variable growing conditions, insure that oilseed imports are a necessity for some time. While it appears Mexico prefers to import oilseeds rather than oils, soybean oil purchases were made from the United States in 1971. The tariff structure is unknown. However, assuming that rapeseed crushing facilities are minimal coupled with the severe oil deficit, rapeseed oil possibly could be sold in Mexico.

Mexico's desired meal is soybean, then cottonseed. Through technical assistance and educational programs sponsored by Canada, our lower-priced rapeseed meal may have some opportunity to relieve Mexico's rising feed industry requirements.

(b) Production, Trade and Apparent Consumption

The imports of oilseeds and oils into this region are mainly for Mexico. Central America is basically self-sufficient through their oilseed production and intra-regional trade.

Rapeseed is only grown in Mexico. The apparent consumption is small but growing. Canada supplied the rapeseed imports.

# APPARENT CONSUMPTION OF RAPESEED OIL AND MEAL

## CENTRAL AMERICA AND MEXICO

	<u>1965-66 Average</u> (1,000 Metric Tons)	<u>1969-70 Average</u>
<u>OIL</u>		
<u>Domestic</u> - oil equivalent	2.0 <sub>(1)</sub>	2.0
<u>Imports</u> -Oil Equivalent	<u>-</u>	<u>6.4</u>
Total	2.0	8.4
<u>Exports</u>	<u>-</u>	<u>-</u>
APPARENT CONSUMPTION	2.0	8.4
<u>MEAL</u>		
<u>Domestic</u> - meal equivalent	2.9 <sub>(1)</sub>	2.9
<u>Imports</u>	<u>-</u>	<u>-</u>
Total	2.9	2.9
<u>Exports</u>	<u>-</u>	<u>-</u>
APPARENT CONSUMPTION	2.9	2.9

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(1) 1966 figure only

Soybeans are grown in Mexico. This domestic production is supplemented by imports. Some soybean oil is also imported into Central America. The apparent consumption table on soybean oil indicates an enormous increase in utilization of soybean oil. This increase is almost entirely attributable to the tremendously enlarged soybean crop in Mexico. In 1970, about 300,000 metric tons were produced compared to 94,000 metric tons in 1966. Despite this spectacular expansion, Mexico must import beans to assist in relieving the domestic deficit.

APPARENT CONSUMPTION OF SOYBEAN OIL AND MEAL  
CENTRAL AMERICA AND MEXICO

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	16.9 <sub>(1)</sub>	54.0	
<u>Imports</u>			
-Oil Equivalent	1.1	14.0	
-Oil	-	9.2	
Total	18.0	77.2	
<u>Exports</u>	-	-	
APPARENT CONSUMPTION	18.0	77.2	or 54.8% annual increase
<u>MEAL</u>			
<u>Domestic</u> - meal equivalent	74.3 <sub>(1)</sub>	237.0	
<u>Imports</u>			
-Meal Equivalent	5.0	61.5	
Total	79.3	298.5	
<u>Exports</u>	-	-	
APPARENT CONSUMPTION	79.3	298.5	or 46.1% annual increase

(1) 1966 figure only

Cottonseed production is easily the most significant soft oilseed produced. Mexico is the largest producer, but cottonseed is also the major oilseed grown in Central America. Very little cottonseed or oil enters world markets. The exports that occur are part of the intra-regional trade in Central America.

# APPARENT CONSUMPTION OF COTTONSEED OIL AND MEAL

## CENTRAL AMERICA AND MEXICO

	<u>1965-66 Average</u> (1,000 Metric Tons)	<u>1969-70 Average</u>	
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	214.2 <sub>(1)</sub>	171.5	
<u>Imports</u>			
-Oil Equivalent	-	2.2	
-Oil	<u>13.0</u>	<u>13.2</u>	
Total	227.2	186.9	
<u>Exports</u>			
-Oil Equivalent	25.6	4.3	
-Oil	<u>7.8</u>	<u>13.5</u>	
Total	33.4	17.8	
APPARENT CONSUMPTION	193.8	169.1	or 12.8% annual decreas
<u>MEAL</u>			
<u>Domestic</u> - Meal Equivalent	923.9 <sub>(1)</sub>	739.7	
<u>Imports</u>			
-Meal Equivalent	<u>-</u>	<u>9.5</u>	
Total	923.9	749.2	
<u>Exports</u>			
-Meal Equivalent	110.6	18.6	
-Meal	<u>148.1</u>	<u>15.2</u>	
Total	258.7	33.8	
APPARENT CONSUMPTION	665.2	715.4	or 1.3% annual increas

(1) 1966 figure only



Nearly all groundnut production is centred in Mexico. The 1971 F.A.O. Production Yearbook indicates 101,000 metric tons of groundnuts being produced in Mexico, yet U.S.D.A. show groundnut oil output at 1700 metric tons for the same year. Obviously, most groundnuts are for edible purposes rather than crushing. For this reason, no apparent consumption table for groundnut oil was developed.

While some copra is grown in Central America, Mexico is the principal grower. While demand is not lacking, growth in apparent consumption is restrained due to production levels.

Virtually all meal exports originate from Central America. Mexico's demand for meal is rapidly rising with enlarged poultry and hog production. In 1971, Mexico started to import soybean meal from the United States to relieve the near crisis shortage resulting from reduced cottonseed output.

# APPARENT CONSUMPTION OF COCONUT OIL AND MEAL

## CENTRAL AMERICA AND MEXICO

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	1,113.6 <sub>(1)</sub>	1,133.4	
<u>Imports</u>			
-Oil Equivalent	<u>-</u>	<u>6.7</u>	
Total	1,113.6	1,140.1	
<u>Exports</u>			
-Oil Equivalent	2.3	-	
-Oil	<u>2.1</u>	<u>-</u>	
Total	<u>4.4</u>	<u>-</u>	
APPARENT CONSUMPTION	1,109.2	1,140.1	% increase negligible
<u>MEAL</u>			
<u>Domestic</u> - Meal Equivalent	609.0 <sub>(1)</sub>	619.9	
<u>Imports</u>			
-Meal Equivalent	<u>-</u>	<u>3.7</u>	
Total	609.0	623.6	
<u>Exports</u>			
	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	609.0	623.6	or .4% annual increase

(1) 1966 figure only

(13) SOUTH AMERICA

(a) Conclusion

The South American region consists of several countries that are significant oilseed growers, while the remaining countries are barely self-sufficient or are deficient in oilseeds and oils. Most oilseeds and oils produced are retained for domestic consumption. Brazil and Argentina are large meal exporters.

The countries of Chile, Peru and Ecuador appear to offer potential for imported rapeseed oil. Both Peru and Chile have large import duties and deposits at present. However, Chile appears to be flexible in removing the duty for a specified period of time so rapeseed oil can be imported. In fact, Chile is now including rapeseed oil as one of the acceptable oils when tenders are offered by COMARSA, the government and industry buying agency.

The mixed-feed industry is generally expanding. The countries of Chile, Peru and Venezuela are meal deficient. Soybean meal appears to be the desired meal, so until rapeseed meal is fully interchangeable with soybean, it is doubtful if sales can be made. Educational programs may assist in overcoming this reluctance to use our rapeseed meal.

(b) Production, Trade and Apparent Consumption

Nearly all the countries in this region are attempting to become self-sufficient in oilseeds. Brazil is the third largest soybean grower in the world; Argentina is the third largest exporter of meals; and Peru is the largest exporter of fish oil and meal. Other countries are deficient in vegetable oil and must import their needs.

Rapeseed is only produced in Chile and no imports or exports of rapeseed were registered in other South American countries by the end of 1970.

Soybeans offer the best potential crop in Brazil. This oilseed is often double-cropped with wheat. In 1970, about 1.3 million metric tons were produced. Forecasts

indicate Brazil's soybean output will rise to 3 million metric tons by 1975<sup>(1)</sup>. Their present crushing capability of 1 million tons per year will double by 1975. The Brazilian government also supports soybeans at about \$56/ton. In Paraguay, soybean production is a relatively new commercial venture. Like Brazil, soybeans are often double-cropped with wheat. Columbia has also developed its own soybean crop and supplies oil to Peru, Chile and several Caribbean countries. Venezuela crushes United States soybeans and Argentina is attempting to expand domestic production. The apparent consumption of soybean oil increased markedly compared to other soft oils.

APPARENT CONSUMPTION OF SOYBEAN OIL AND MEAL  
----- SOUTH AMERICA -----

	<u>1965-66 Average</u> (1,000 Metric Tons)	<u>1969-70 Average</u>	
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	123.3 <sub>(1)</sub>	256.5	
<u>Imports</u>			
-Oil Equivalent	5.6	9.3	
-Oil	<u>50.5</u>	<u>68.2</u>	
Total	179.4	334.0	
<u>Exports</u>			
-Oil Equivalent	17.7	54.0	
-Oil	<u>-</u>	<u>.4</u>	
Total	17.7	54.4	
APPARENT CONSUMPTION	161.7	279.6	or 12.2% annual increase
<u>MEAL</u>			
<u>Domestic</u> - meal equivalent	541.2 <sub>(1)</sub>	1,125.8	
<u>Imports</u>			
-Meal Equivalent	24.4	41.0	
-Meal	<u>.4</u>	<u>-</u>	
Total	566.0	1,166.8	
<u>Exports</u>			
-Meal Equivalent	77.5	236.9	
-Meal	<u>147.6</u>	<u>410.9</u>	
Total	225.1	647.8	
APPARENT CONSUMPTION	340.9	519.0	or 8.7% annual increase

(1) 1966 figure only

(1) U.S.D.A. Foreign Agriculture

Cottonseed production surpasses other oilseed output in South America. Virtually all countries grow some cottonseed, but Brazil is by far the largest grower. Although, acreages in Brazil are expected to decline as farmers switch to more profitable crops. Peru, Columbia and Argentina are also significant producers. No cottonseed or oil of any significance enters the world markets.

APPARENT CONSUMPTION OF COTTONSEED OIL AND MEAL  
----- SOUTH AMERICA -----

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	259.5 <sub>(1)</sub>	322.7	
<u>Imports</u>	<u>18.4</u>	<u>-</u>	
Total	277.9	322.7	
<u>Exports</u>			
-Oil Equivalent	-	-	
-Oil	<u>-</u>	<u>2.0</u>	
Total	-	2.0	
APPARENT CONSUMPTION	277.9	320.7	or 2.6% annual increase
<u>MEAL</u>			
<u>Domestic</u> - meal equivalent	1,119.2 <sub>(1)</sub>	1,391.7	
<u>Imports</u>			
-Meal Equivalent	<u>-</u>	<u>-</u>	
Total	1,119.2	1,391.7	
<u>Exports</u> -			
-Meal	<u>101.8</u>	<u>268.8</u>	
APPARENT CONSUMPTION	1,017.4	1,122.9	or 1.7% annual increase
<hr/>			
(1) 1966 figure only			

(1) 1966 figure only

Brazil and Argentina are the main groundnut growers. Significant exports of groundnut oil have occurred in the past. Like other major groundnut-producing countries, output is sensitive to weather. Thus, the decline in apparent consumption was caused by lower availabilities. Groundnut acreage is enlarging in Argentina for the first time since 1964-65. Current high oil prices offer an incentive for this expansion.



APPARENT CONSUMPTION OF GROUNDNUT OIL AND MEAL  
SOUTH AMERICA

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	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	598.0 (1)	484.0	
<u>Imports</u>			
-Oil	<u>3.5</u>	<u>5.3</u>	
Total	601.5	489.3	
 <u>Exports</u>			
-Oil Equivalent	43.7	18.6	
-Oil	<u>70.6</u>	<u>53.9</u>	
Total	114.3	72.5	
APPARENT CONSUMPTION	487.2	416.8	or 2.4% annual decrease
 <u>MEAL</u>			
<u>Domestic</u> - meal equivalent	761.0 (1)	616.0	
<u>Imports</u>	<u>-</u>	<u>-</u>	
Total	761.0	616.0	
 <u>Exports</u>			
-Meal Equivalent	55.6	23.6	
-Meal	<u>184.3</u>	<u>223.8</u>	
Total	239.9	247.4	
APPARENT CONSUMPTION	521.1	368.6	or 4.9% annual decrease

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(1) 1966 figure only

Argentina is a significant sunflowerseed producer. The Argentinean government restricts the volume of sunflowerseed exports due to internal needs. In 1971, sunflowerseed exports were banned until March, 1972 as a result of a small 1970-71 harvest. Elaborate price supports and export regulations exist in Argentina. Uruguay also produces sunflowerseed, but in recent years has had to import this oilseed to meet domestic crushing requirements.

APPARENT CONSUMPTION OF SUNFLOWERSEED OIL AND MEAL  
SOUTH AMERICA

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	<u>1965-66 Average</u> (1,000 Metric Tons)	<u>1969-70 Average</u>
<u>OIL</u>		
<u>Domestic</u> - oil equivalent	412.7 <sub>(1)</sub>	407.4
<u>Imports</u>		
-Oil	<u>20.7</u>	<u>31.1</u>
Total	433.4	438.5
<u>Exports</u>		
-Oil Equivalent	25.0	-
-Oil	<u>58.0</u>	<u>54.3</u>
Total	83.0	54.3
APPARENT CONSUMPTION	350.4	384.2
<u>MEAL</u>		
<u>Domestic</u> - meal equivalent	347.1 <sub>(1)</sub>	407.4
<u>Imports</u>	<u>-</u>	<u>-</u>
Total	347.1	407.4
<u>Exports</u>		
-Meal Equivalent	21.0	-
-Meal	<u>342.6</u>	<u>364.8</u>
Total	363.6	364.8
APPARENT CONSUMPTION	-16.5	42.6

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(1) 1966 figure only

Other large oil crops are copra and oil palms. Very little output enters world markets. Peru is developing palm plantations in an attempt to lessen her dependence on imports. In 1973, palm processing is expected to commence and eventually should reach 15,000 to 20,000 tons annually. This palm oil will probably offset U.S. soybean imports. Ecuador is also encouraging palm oil production to assist in meeting the rising domestic demand.

Peru is the world's leading fish oil producer. Chile is also a major supplier. Production and subsequent export availabilities fluctuate with the annual fish catch. The export availability is also closely controlled by these governments.

As a whole, South America is a net exporter of vegetable and fish meals. Argentina and Brazil dominate exports from this region. Virtually no meal imports exist. Regional meal demand is enlarging due to the expanded poultry and livestock numbers. While many of these countries are meal deficient, regulations in several countries severely limit meal importation.

Peru is the largest fishmeal producer in the world. However, this country has reduced its use of fishmeal in mixed feed in an attempt to reduce salmonella infection, which apparently results from heavy feeding of fish meal. Another reason is to improve the flavor of the broilers and eggs. Like fish oil, the exports of fish meal are controlled.

(c) Import Tariffs on Rapeseed Oil and Meal

		<u>Duty</u>	<u>Prior Deposit</u>
<u>ARGENTINA</u>			
15.07.06.00	Rapeseed oil	120%	40%
23.04.00.00	Rapeseed meal	80%	40%
<u>BRAZIL</u>			
15.07.01.07	Rapeseed oil, crude	20%	
15.07.02.07	Rapeseed oil, refined or purified	37%	
23.04.99.00	Rapeseed meal	7%	
	Rapeseed oil subject to a 4% Industrialized Product Tax (IPI) based on duty paid value. Import License (Guia) required for most imports.		

		<u>Specific in Sales</u>	<u>Ad valorem</u>
<u>PERU</u>			
15.07.1.99	Rapeseed oil, crude	K.G. 2.00	20%
15.07.2.99	Rapeseed oil, semi-refined	K.G. 4.00	30%
15.07.3.99	Rapeseed oil, refined or purified	K.G. 8.00	30%
23.04.0.99	Rapeseed meal	K.G. 0.10	20%

Additional tax 10% of C.I. of value

		<u>Duty</u>	<u>Prior Deposit</u>
<u>CHILE</u>			
15.07.01.01	Rapeseed oil for human consumption in bulk	70%	10,000%
15.07.01.99	Other rapeseed oil for human consumption	120%	10,000%
23.04	Rapeseed meal	60%	10,000%

Crude rapeseed oil imported for use exclusively in the manufacture of edible oil free of duty for a period of 150 days effective December 13, 1972 subject to prior authorization from the Ministry of Economy, Development and Reconstruction.

(14) EAST AND WEST AFRICA

(a) Conclusion

The exports of oils from East and West Africa will continue to make this region a significant net exporter. While increased personal incomes and urbanization may reduce the export availabilities, recent utilization of modern processing methods will probably offset this larger internal consumption.

Although some African countries are promoting enlarged livestock numbers, future meal exports are expected to grow faster than oil exports. These meal exports provide needed foreign exchange earnings.

(b) Production and Trade

This area of the world is one of the major oilseed, oil and meal exporters. Until a few years ago, East and West Africa were the world's largest exporter of oil-palm products. Many European countries depend on groundnut and groundnut oil exports from Nigeria and Senegal. And except for soybeans, every other type of oilseed is cultivated in widely varying volumes.

Export availabilities of groundnuts declined through 1970 and 1971, although improvement is expected in 1972. The 1970 and 1971 reduction was caused by unfavourable weather. Provided the weather co-operates, the improved producer prices are expected to add incentive for larger output.

Following the finalization of the E. E. C.'s Common Agricultural Policy in 1967, the Senegalese groundnut exporters enjoyed preferential tariffs with the E. E. C. countries through the African Associated States and the Malagasy Republic group (A. A. S. M.). Nigeria, the other major groundnut producer does not enjoy preferential tariffs as the agreement between the E. E. C. and Nigeria was not concluded with the outbreak of the 1966 Nigerian civil war.



The Common Agricultural Policy in 1967 created a single market for oils and fats in the E.E.C., that is, any tariffs and quantitative restrictions between the members were abolished. Subsequently, oilseeds from any source were admitted free, crude oils had an ad valorem duty of 10%, with 15% for refined. Members of A.A.S.M. have no duty imposed on palm or peanut oil. Despite this, duty-free access, Sengalese producers still received less for their groundnuts with the abolishment of their annually-negotiated agreement with France which had maintained export prices roughly 20% above world levels. During the same period, Nigerian output declined due to internal strife plus poor producer prices. The Nigerian Marketing Board establishes producer prices and controls the marketing process of peanuts. To generate funds required to meet government needs, a certain percentage of the producers' price is taken by the Board. Although the producer prices were increased in 1970 and 1971, the poor weather conditions did not aid increased output in this country.

Overall groundnut output is expected to rise in the future as relatively little capital is required to increase the production of peanuts. The major inputs are land and labour, which are relatively plentiful. Domestic crushing in producer countries is also expanding.

Palm oil production is large and until recently enjoyed dominance in the world market. Recent internal strife in Nigeria and the Congo (Kinshasa), relatively inefficient processing methods, low yields (in Nigeria particularly) and increasing internal consumption have lessened this region's export availabilities. Indonesia and Malaysia have become major and comparatively efficient competitors in the world market.

In Nigeria, most of the palm oil is obtained from wild or semi-wild trees. Because these trees are not properly cared for the yield is low. One source suggests all Nigerian palm oil will soon be consumed domestically due to increased demand, but palm kernels and palm kernel oil will continue to be exported<sup>(1)</sup>. In addition, the low

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(1) U.S.D.A. Foreign Agriculture Circular

level of producer prices did not offer incentive for new plantings. Contrarily, most oil palms in the Congo (Kinshasa) are grown on plantations. During the civil war between 1964 and 1965, many planters were forced to leave their plantations. Without new plantings of palm trees, the production will not increase. Also, the lack of adequate care and management does not enhance output. In 1970, the Ivory Coast exported palm oil for the first time. Until a few years ago, this country was a net importer of palm oil. Future palm oil exports from A.A.S.M. countries to the E.E.C. may be affected since the E.E.C. reduced the duty on palm oil for other third countries, from 9% to 6% in 1970.

In East Africa, some palm oil, palm kernel oil and coconut oil are produced but volumes are insignificant compared to West Africa. Cottonseed is the main soft oil available for crushing. Uganda is the largest supplier of cottonseed and ships most of her surplus to Kenya, while Tanzania is relatively self-sufficient in cottonseed requirements. Very little cottonseed oil is exported but the meal goes to Europe to obtain export revenue. Outside of East Africa, Nigeria is the major cottonseed supplier.

(15) NORTH AFRICA

(a) Conclusion

The North African region consists of Libya, Sudan, Algeria, Egypt, Tunisia and Morocco.

The future vegetable oil requirements for this region will continue to increase. It is doubtful that domestic production will be able to meet the growing internal requirements if the recently marked increase of sunflowerseed oil imports are indicative. Price appears to be the key variable in the decision of which oil to purchase. Thus through promotion, imports of Canadian rapeseed oil could offer an alternative to soybean oil and sunflowerseed oil. Similar to other developing countries import tariffs are high, except in Algeria where no tariff exists on imported rapeseed oil. Morocco prohibits importation of rapeseed oil or meal, so the alternative here would be enlarged Canadian exports of rapeseed to supply her domestic crushers.

Meal requirements will rise. In view of the lack of consumption of rapeseed meal, a significant educational program should be conducted by Canada. Since North Africa is a developing region, foreign exchange is an important variable. If a proportion of consumption was converted to rapeseed meal, the more valuable cottonseed meal and groundnut meal could be exported for increased export earnings. This is the prime reason most of the olive oil is exported and domestic requirements are met by the less-expensive soft oils.

(b) Production, Trade and Apparent Consumption

Vegetable oilseed and oil production has increased over the last six years. The major crops are cottonseed, groundnuts and olives. Sunflowerseed is grown in Morocco and a small quantity of rapeseed is produced in Algeria. On an oil-equivalent basis, this region is a net importer to meet rising domestic requirements.

Compared to the consumption of other soft oils, rapeseed oil is minor. Rapeseed production in Algeria remained stable over the 6-year period at 6,000 metric tons. A small consumption increase on an oil-equivalent basis occurred as a result of minor import changes. Canada has exported rapeseed to Morocco.

APPARENT CONSUMPTION OF RAPESEED OIL AND MEAL  
NORTH AFRICA

	<u>1965-66 Average</u>	<u>1969-70 Average</u>
	(1,000 Metric Tons)	
<u>OIL</u>		
<u>Domestic</u> - oil equivalent	2.3 <sub>(1)</sub>	2.3
<u>Imports</u>		
-Oil Equivalent	22.4	23.4
-Oil	<u>2.6</u>	<u>3.5</u>
Total	27.3	29.2
<u>Exports</u>	<u>-</u>	<u>-</u>
APPARENT CONSUMPTION	27.3	29.2
<u>MEAL</u>		
<u>Domestic</u> - meal equivalent	3.4 <sub>(1)</sub>	3.4
<u>Imports</u>		
-Meal Equivalent	<u>32.8</u>	<u>34.9</u>
Total	36.2	38.3
<u>Exports</u>		
-Meal	<u>26.9</u>	<u>41.3</u>
APPARENT CONSUMPTION	9.3	- 3.0

(1) 1966 figure only

In the past, most soybean oil imports have been concessional sales under the United States' Public Law 480 program. During the 1969-70 period, the imports of this oil slightly declined with the cheaper availability of sunflowerseed oil from Eastern Europe. This region's imports appear to fluctuate between soybean oil or sunflowerseed oil depending on price. Also, barter arrangements extended by Russia stimulate sunflowerseed oil imports. For example, Morocco has exchanged oranges for sunflowerseed oil from Russia.

# APPARENT CONSUMPTION OF SOYBEAN OIL AND MEAL

## NORTH AFRICA

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Imports</u>			
-Oil Equivalent	.8	.2	
-Oil	<u>70.0</u>	<u>68.1</u>	
Total	70.8	68.3	
<u>Exports</u>	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	70.8	68.3	or 2.6% annual decrease
<u>MEAL</u>			
<u>Imports</u>			
-Meal Equivalent	3.7	.8	
-Meal	<u>1.4</u>	<u>2.6</u>	
Total	5.1	3.4	
<u>Exports</u>	<u>.5</u>	<u>-</u>	
APPARENT CONSUMPTION	4.6	3.4	or 4.4% annual decrease



Egypt is the largest producer of cottonseed, then Sudan and Morocco. Compared to the volume of cottonseed oil produced by this region, only small quantities enter the world market. The growing population requires the increased oil output, as is evident by the rising apparent consumption of cottonseed oil.

APPARENT CONSUMPTION OF COTTONSEED OIL AND MEAL  
NORTH AFRICA

	<u>1965-66 Average</u>	<u>1969-70 Average</u>
	(1,000 Metric Tons)	
<u>OIL</u>		
<u>Domestic</u> - oil equivalent	180.0 <sub>(1)</sub>	212.8
<u>Imports</u>		
-Oil Equivalent	-	-
-Oil	<u>1.0</u>	<u>30.3</u>
Total	181.0	243.1
<u>Exports</u>		
-Oil Equivalent	9.3	11.6
-Oil	<u>9.7</u>	<u>11.2</u>
Total	19.0	22.8
APPARENT CONSUMPTION	162.0	220.3 or 6.0% annual increase
<u>MEAL</u>		
<u>Domestic</u> - meal equivalent	776.3 <sub>(1)</sub>	917.7
<u>Imports</u>		
-Meal Equivalent	-	-
-Meal	<u>-</u>	<u>-</u>
Total	776.3	917.7
<u>Exports</u>		
-Meal Equivalent	40.4	50.0
-Meal	<u>141.8</u>	<u>161.3</u>
Total	182.2	211.3
APPARENT CONSUMPTION	594.1	706.4 or 3.2% annual increase

(1) 1966 figure only

Groundnuts are the second principal oil-bearing crop with production centred in Sudan. Over the historical period examined, the decline in exports plus increased production greatly enlarged the apparent consumption of groundnut oil. The rising regional demand may further reduce export availabilities.

APPARENT CONSUMPTION OF GROUNDNUT OIL AND MEAL  
----- NORTH AFRICA -----

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	147.8 <sub>(1)</sub>	173.1	
<u>Imports</u>			
-Oil Equivalent	<u>1.5</u>	<u>2.1</u>	
Total	149.3	175.2	
<u>Exports</u>			
-Oil Equivalent	58.6	37.4	
-Oil	<u>.8</u>	<u>-</u>	
Total	59.4	37.4	
APPARENT CONSUMPTION	89.9	137.8	or 8.9% annual increase
<u>MEAL</u>			
<u>Domestic</u> - meal equivalent	188.2 <sub>(1)</sub>	220.4	
<u>Imports</u>			
-Meal Equivalent	1.8	2.7	
-Meal	<u>.8</u>	<u>.6</u>	
Total	190.8	223.7	
<u>Exports</u>			
-Meal Equivalent	74.6	47.7	
-Meal	<u>20.4</u>	<u>31.9</u>	
Total	95.0	79.6	
APPARENT CONSUMPTION	95.8	144.1	or 8.4% annual increase

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(1) 1966 figure only

While the production of sunflowerseed in Morocco increased between 1965-66 to 1969-70 period, the imports of sunflowerseed oil caused the significant rise in apparent consumption. These imports originated from Eastern Europe and Russia. As mentioned earlier, the barter arrangements with Russia would stimulate imports of this oil.

APPARENT CONSUMPTION OF SUNFLOWERSEED OIL AND MEAL  
----- NORTH AFRICA -----

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	1.3 <sub>(1)</sub>	5.1	
<u>Imports</u>			
-Oil Equivalent	-	****	
-Oil	<u>33.1</u>	<u>57.0</u>	
Total	34.4	62.1	
<u>Exports</u>	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	34.4	62.1	or 13.4% annual increase
 <u>MEAL</u>			
<u>Domestic</u> - meal equivalent	1.1 <sub>(1)</sub>	4.3	
<u>Imports</u>			
-Meal Equivalent	-	*****	
-Meal	<u>.3</u>	<u>-</u>	
Total	1.4	4.3	
<u>Exports</u>	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	1.4	4.3	or 34.5% annual increase

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(1) 1966 figure only

\*\*\*\* negligible

Olive oil is manufactured in Algeria, Libya, Morocco and Tunisia. Tree plantings have increased, particularly in Tunisia. The output of olive oil is cyclical although most of these countries have attempted to stabilize availabilities through increased storage facilities. Most production is exported to the E.E.C. countries to earn foreign exchange. Since 1969, Morocco and Tunisia have enjoyed preferential import duties with the E.E.C. through association status. The olive oil retained for domestic use is usually blended with other oils.

The consumption of meals has been increasing with enlarged cattle and poultry production. The Moslem religion prohibits pork consumption. In Libya, the government recently solicited bids from foreign firms for the development of five agricultural settlement projects. The land allocation for each project depends on the type of operation - cattle raising, grain, etc. The current Tunisian four-year plan envisions expansion of cattle numbers and increased feed mill capacity. These plans plus larger poultry output will further expand North Africa's meal requirements.

From the apparent consumption table on rapeseed meal, it is evident that this meal is unpopular. Virtually all the rapeseed meal output is exported.

(c) Import Tariffs on Rapeseed Oil and Meal

The only countries for which import tariffs are available are: U.A.R. (Egypt), Tunisia, Algeria and Morocco.

<u>U.A.R. (EGYPT)</u>	<u>Tariff No.</u>	<u>Duty Rates</u>
Rapeseed Oil	15.07	10%
Rapeseed Meal	23.04	25%

Imports are restricted to Government departments, nationalized industries and state trading organizations.

In addition to Custom duties, the following charges apply:

Statistical Duty	11% of C.I.F. value
Consolidation Duty	10% of C.I.F. value
Municipal Duty	37% of duty paid
(Customs, Statistical and Consolidation)	

<u>TUNISIA</u>	<u>Tariff No.</u>	<u>Duty Rate</u>
Rapeseed Oil	15.07	Crude - 38.11% Refined - 44.16%
Rapeseed Meal	23.04	12.7%

In addition to the above duty rates, the following charges apply:

Customs Formality Tax	2.5% of C.I.F. value
Production Tax	21% of duty paid value

All imports from countries other than those in the franc area require import licenses.

#### ALGERIA

Rapeseed oil	15.07	Free
Rapeseed meal	23.04	15%

Import License required.

#### MOROCCO

Rapeseed oil	15.07	Crude - 21.625% Refined - 43.425%
Rapeseed meal	23.04	21.625%

Both these products are prohibited importations.



(16) WEST ASIA

(a) Conclusion

West Asia is comprised of Bahrein, Cyprus, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Muscat and Oman, Qatar, Saudi Arabia, South Yemen, Syria, Trucial States, Turkey and Yemen. This region is a net importer of oils but exports meals. The only countries participating in the world oil market are: Iran, Iraq, Israel, Lebanon, Syria and Turkey.

Until recently, the United States was the main oil exporter in this market through her P. L. 480 shipments. Israel remains the major recipient of these concessional sales. The countries of Iran and Iraq appear to have vegetable oil shortages and rapeseed oil could be interchangeable with other soft oils familiar to these countries. Turkey is virtually self-sufficient in her oil requirements. Also, Turkey does not consider rapeseed oil edible.

While meal consumption is increasing, the region will likely continue to export large quantities of meal for foreign exchange earnings.

(b) Production, Trade and Apparent Consumption

Cottonseed is the main oilseed crop produced, followed by sunflowerseed, olive oil and groundnuts. Minimal amounts of rapeseed are grown.

The only producer of rapeseed is Turkey. Since rapeseed oil is not considered edible in Turkey plus this oil was not imported into other countries in the region, there appears to be no human consumption of rapeseed oil in West Asia.

Virtually all regional imports of soybeans go to Israel to supply their domestic crushing needs. Over 80% of Israel's fat and oil consumption is soybean oil. This country has a modern continuous-solvent-extraction industry capable of crushing 800,000 tons per year. At present rates of crushing, the industry is only operating at about 40% capacity. Israel also imports and exports soybean oil. The other soybean oil importers are Iran and Turkey. Turkey's production of soybeans has expanded. This oilseed was successfully tried in the early 1960's in Turkey and resulted in a soybean crushing plant being established. However, improved corn and filbert prices reduced the incentive to grow soybeans.

APPARENT CONSUMPTION OF SOYBEAN OIL AND MEAL  
 ----- WEST ASIA -----

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	.9	2.1	
<u>Imports</u>			
-Oil Equivalent	44.7	48.0	
-Oil	59.4	83.8	
Total	105.0	133.9	
<u>Exports</u>			
-Oil	20.4	13.0	
APPARENT CONSUMPTION	84.6	120.9	or 7.2% annual increase
 <u>MEAL</u>			
<u>Domestic</u> - meal equivalent	13.2	9.1	
<u>Imports</u>			
-Meal Equivalent	196.1	210.8	
Total	209.3	219.9	
<u>Exports</u>	-	-	
APPARENT CONSUMPTION	209.3	219.9	or 1.8% annual increase

Cottonseed is the most important crop in this region. Turkey is the largest producer followed by Iran and Syria. Very little cottonseed or oil enters world markets. In Turkey, this oil is a major input for margarine and ghee or shortening. Iran imports cottonseed oil to supplement domestic production. This latter country appears to have a chronic deficiency in vegetable oils.

APPARENT CONSUMPTION OF COTTONSEED OIL AND MEAL  
WEST AFRICA

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	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	186.4 <sub>(1)</sub>	213.0	
<u>Imports</u>			
-Oil Equivalent	5.9	6.8	
-Oil	<u>20.2</u>	<u>12.6</u>	
Total	212.5	232.4	
 <u>Exports</u>			
-Oil Equivalent	3.6	3.0	
-Oil	<u>15.0</u>	<u>11.9</u>	
Total	18.6	14.9	
 APPARENT CONSUMPTION	193.9	217.5	or 2.0% annual increase
 <u>MEAL</u>			
<u>Domestic</u> - meal equivalent	803.5 <sub>(1)</sub>	918.4	
<u>Imports</u>			
-Meal Equivalent	<u>25.6</u>	<u>29.4</u>	
Total	829.1	947.8	
 <u>Exports</u>			
-Meal Equivalent	15.5	13.0	
-Meal	<u>289.4</u>	<u>280.3</u>	
Total	304.9	293.3	
 APPARENT CONSUMPTION	524.2	654.5	or 4.1% annual increase

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(1) 1966 figure only

Groundnut oil apparent consumption increased through larger indigenous production. Turkey is the largest grower, while Israel has been experimenting with fast-growing varieties. However, Israel has found Europe a good market for edible peanuts rather than crushing them for their oil.

APPARENT CONSUMPTION OF GROUNDNUT OIL AND MEAL  
WEST ASIA

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	17.6 <sub>(1)</sub>	22.2	
<u>Imports</u>	-	-	
Total	17.6	22.2	
<u>Exports</u>			
-Oil Equivalent	1.4	3.8	
-Oil	-	.3	
Total	1.4	4.1	
APPARENT CONSUMPTION	16.2	18.1	or 2.1% annual increase
<u>MEAL</u>			
<u>Domestic</u> - meal equivalent	22.4 <sub>(1)</sub>	28.3	
<u>Imports</u>	-	-	
Total	22.4	28.3	
<u>Exports</u>			
-Meal Equivalent	-	-	
APPARENT CONSUMPTION	22.4	28.3	or 4.4% annual increase

(1) 1966 figure only

The only sunflowerseed producer of any significance is Turkey. Virtually no sunflowerseed oil is exported into world markets. Like other oilseed crops in Turkey, sunflowerseeds are strongly supported. All the region's sunflowerseed oil imports go to Iran.

APPARENT CONSUMPTION OF SUNFLOWERSEED OIL AND MEAL  
----- WEST ASIA -----

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	89.3	156.6	
<u>Imports</u>	(1)		
-Oil	<u>13.7</u>	<u>49.3</u>	
Total	103.0	205.9	
<u>Exports</u>	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	103.0	205.9	or 16.7% annual increase
<u>MEAL</u>			
<u>Domestic</u> - meal equivalent	75.1	137.1	
<u>Imports</u>	(1)		
-Meal	<u>-</u>	<u>-</u>	
Total	75.1	137.1	
<u>Exports</u>			
-Meal	<u>69.0</u>	<u>90.1</u>	
APPARENT CONSUMPTION	6.1	47.0	or 111.7% annual increase

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(1) 1966 figures

Olive oil output is significant in Turkey compared to the small volume produced by the balance of this region. Increased tree plantings and high support prices encourage Turkish production. As olive oil supplies are cyclical, exports from Turkey used to follow the level of production. The government is attempting to stabilize this flow of oil to foreign and domestic markets by building large storage terminals. Only 15% - 20% of olive oil output is presently exported. The tax rebates on exported olive oil may encourage larger future exports.



Like most undeveloped nations, meal is an important export commodity. In Turkey, the largest meal exporter, most crushers are "expellers." One source indicated the oil content of the meal produced in Turkey is so high that foreign buyers re-process the meal using the extraction method. The value of the reclaimed oil is almost enough to pay for the meal and provides the buyer with a cheap feed<sup>(1)</sup>.

Israel obtains her meal requirements from crushing United States' soybeans. Poultry production is very large in this country.

The remaining countries do not export or import meal.

(c) Import Tariffs of Rapeseed Oil and Meal

Import tariffs were available only in Saudi Arabia and Turkey.

<u>SAUDI ARABIA</u>	<u>Tariff No.</u>	<u>Duty Rates</u>
Rapeseed Oil	15.07	Free
Rapeseed Meal	23.04	Free

Neither product is subject to import control.

<u>TURKEY</u>		
Rapeseed Oil	15.07	40%
Unedible used in industry		
Rapeseed Meal	23.04	15%
Import license required		

In addition to the Customs Duty, the following charges are made:

Municipal Tax	15% of Customs Duty
Wharf Dues	5% C.I.F. value plus duty plus municipal tax
Stamp Tax	10% of C.I.F. value
Expenditure Tax	Varying rates assessed on total of C.I.F. value plus duty plus municipal tax plus wharf dues, where applicable.

(1) U.S.D.A. Foreign Agriculture

(17) SOUTH ASIA

(a) Conclusion

India, Pakistan, Ceylon, Afganistan and Nepal comprise the region of South Asia. India and Pakistan dominate consumption, production and trade of oilseeds and their products. Afganistan and Nepal did not register any trade up to 1970, but apparently some oil imports were made into these two countries in 1971.

This region offers tremendous potential for Canadian rapeseed oil. Even if the agricultural plans reach their goals of increased internal oilseed production, the vagaries of the climate continually interfere in overall production levels. At present, India is not purchasing soybean oil and has asked for tenders on rapeseed oil from Canada. The market in Pakistan has been altered due to the emergence of East Pakistan (Bangladesh) as a separate nation. When the present distribution problems in Bangladesh are solved, this country will need greater supplies of vegetable oil to supplant losses from West Pakistan. In West Pakistan, demand for vegetable oil has soared with the development of biscuit and bread industries plus the increasing popularity of fried foods - potatoes, chicken, and so on. These foods are very popular in India as well.

The main hindrance for selling vegetable oil in India and Pakistan is the high tariff structure. India is about 60% and Pakistan's duty is estimated at about 40%. These tariffs will encourage domestic crushing of rapeseed once plants are established.

Rapeseed meal is not likely to be imported to this region. The meal requirements are met by domestic production. Also, the increasing hog production in India is fed domestic corn.

(b) Production, Trade and Apparent Consumption

This region has become more dependent on imported sources for oils with the rising internal demand coupled with relatively static production of cottonseed, copra and rapeseed. Particularly in India, prices tend to soar for domestic oils during periods of shortages. Also prior to harvest when stocks are low, prices of indigenous oils are forced higher. The expanding demand for soap also puts pressure on oil supplies.

The traditional cooking fat in India is ghee. This is a semi-liquid, clarified form of butterfat derived from milk of cows and water buffaloes. This fat represents about 20% of the total fat and oil consumption. Another popular product is vanaspati, a hydrogenated mixture of vegetable oils similar to

shortening. The main input has been peanut oil, although soybean oil is used as a cheaper substitute.

Until recently, oilseed crushers were small, inefficient mills situated in rural villages. The oil produced was crude, smoked and imparted a significant flavour to the food. A few modern solvent-extraction plants have established in India that utilize cottonseed.

India was the largest rapeseed grower in the world. It is also grown in Pakistan. Exports are minimal. Canada has sold rapeseed to both India and Pakistan in the past. The rate of increase in apparent consumption coincides comparatively with the population growth of these two countries.

APPARENT CONSUMPTION OF RAPESEED OIL AND MEAL  
----- SOUTH ASIA -----

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	606.1 <sub>(1)</sub>	694.2	
<u>Imports</u>			
-Oil Equivalent	7.5	5.7	
-Oil	<u>.3</u>	<u>.1</u>	
Total	613.9	700.0	
<u>Exports</u>			
-Oil	<u>.5</u>	<u>.3</u>	
APPARENT CONSUMPTION	613.4	699.7	or 2.4% annual increase
<u>MEAL</u>			
<u>Domestic</u> - meal equivalent	885.8 <sub>(1)</sub>	1,014.6	
<u>Imports</u>			
-Meal Equivalent	<u>10.9</u>	<u>8.4</u>	
Total	896.7	1,023.0	
<u>Exports</u>			
-Meal	<u>18.2</u>	<u>18.8</u>	
APPARENT CONSUMPTION	878.5	1,004.2	or 2.4% annual increase

(1) 1966 figure only

No soybeans are produced for commercial crushing. India is experimenting with new varieties and her current agricultural plan has set a goal of 1 million acres of soybeans by 1973-74. This objective appears overly optimistic as only 75,000 acres were grown in 1971. West Pakistan also is experimenting with the production of soybeans. Most historical purchases of soybean oil in India and Pakistan have been through Public Law 480. In 1970, India made her first commercial purchase of soybean oil. Of the 100,000 metric tons purchased, only 3,000 metric tons came from the United States. Pakistan also increased commercial purchases, as opposed to P. L. 480 shipments.

APPARENT CONSUMPTION OF SOYBEAN OIL AND MEAL  
SOUTH ASIA

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Imports</u>			
-Oil	113.6	224.1	
<u>Exports</u>	-	-	
APPARENT CONSUMPTION	113.6	224.1	or 16.2% annual increase
<u>MEAL</u>			
<u>Imports</u>	-	-	
<u>Exports</u>	-	-	
APPARENT CONSUMPTION	-	-	

Significant increased output of cottonseed occurred in Pakistan in the 1960's, while India's production rose only moderately. The region's rate of increase in production of cottonseed was matched by apparent consumption. No oil or seed was exported.

APPARENT CONSUMPTION OF COTTONSEED OIL AND MEAL  
----- SOUTH ASIA -----

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	468.3 <sub>(1)</sub>	521.9	
<u>Imports</u>			
-Oil	<u>13.4</u>	<u>4.1</u>	
Total	481.7	526.0	
<u>Exports</u>	<u>-</u>	<u>-</u>	
APPARENT CONSUMPTION	481.7	526.0	or 1.5% annual increase
<u>MEAL</u>			
<u>Domestic</u> - meal equivalent	2,019.6 <sub>(1)</sub>	2,250.8	
<u>Imports</u>	<u>-</u>	<u>-</u>	
Total	2,019.6	2,250.8	
<u>Exports</u>			
-Meal	<u>142.1</u>	<u>128.7</u>	
APPARENT CONSUMPTION	1,877.5	2,122.1	or 2.2% annual increase

(1) 1966 figure only



The marked increase in groundnut oil apparent consumption is due to the significantly expanded production which exceeded the population growth. India had a record groundnut crop in 1970. Because most of the groundnut acreage in India and Pakistan is grown on non-irrigated land, the yield is susceptible to the vagaries of the monsoon.

APPARENT CONSUMPTION OF GROUNDNUT OIL AND MEAL  
SOUTH ASIA

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	1,973.8 <sub>(1)</sub>	2,593.4	
<u>Imports</u>	-	-	
Total	1,973.8	2,593.4	
<u>Exports</u>			
-Oil Equivalent	.7	16.3	
-Oil	.6	.2	
Total	1.3	16.5	
APPARENT CONSUMPTION	1,972.5	2,576.9	or 5.1% annual increase
<u>MEAL</u>			
<u>Domestic</u> - meal equivalent	2,512.2 <sub>(1)</sub>	3,300.6	
<u>Imports</u>	-	-	
Total	2,512.2	3,300.6	
<u>Exports</u>			
-Meal Equivalent	.8	20.8	
-Meal	703.8	592.3	
Total	704.6	613.1	
APPARENT CONSUMPTION	1,807.6	2,687.5	or 8.1% annual increase

(1) 1966 figure only

Ceylon is a major exporter of copra. Exports of coconut oil were low during the 1966-70 period; similar to other world coconut oil producers. Indian coconut oil production is growing slowly while Pakistan imports her coconut oil needs. The demand for this oil is considerable from soap and cosmetic manufacturers.

ANNUAL CONSUMPTION OF COCONUT OIL AND MEAL  
SOUTH ASIA

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
Domestic - oil equivalent	3,084.8 <sub>(1)</sub>	3,116.8	
<u>Imports</u>			
-Oil Equivalent	26.4	12.3	
-Oil	<u>13.8</u>	<u>9.0</u>	
Total	3,125.0	3,138.1	
<u>Exports</u>			
-Oil Equivalent	20.5	10.9	
-Oil	<u>81.2</u>	<u>56.0</u>	
Total	101.7	66.9	
APPARENT CONSUMPTION	3,023.3	3,071.2	or .3% annual increase
<u>MEAL</u>			
Domestic - meal equivalent	1,687.0 <sub>(1)</sub>	1,704.5	
<u>Imports</u>			
-Meal Equivalent	<u>14.5</u>	<u>6.7</u>	
Total	1,701.5	1,711.2	
<u>Exports</u>			
-Meal Equivalent	11.2	6.0	
-Meal	<u>26.2</u>	<u>8.8</u>	
Total	37.4	14.8	
APPARENT CONSUMPTION	1,664.1	1,696.4	or .3% annual increase

(1) 1966 figure only

This region is a traditional exporter of meal, particularly cottonseed and groundnut. When the Suez Canal closed, the flow of trade was significantly altered. The higher transportation costs India incurred to land meal into Europe increased her sales to Japan. While Eastern Europe and Russia still constitute the major outlet for India's groundnut meal, the United Kingdom and Japan are the next principal buyers. Internal demand is also developing.

(c) Import Tariffs on Rapeseed Oil and Meal

The only tariff rates available were for India:

<u>INDIA</u>	<u>Tariff No.</u>	<u>Duty Rates</u>
Rapeseed Oil	15(6)	60% less paisa per quintal of oil
Rapeseed Meal	23	60%

Import license required. In addition a temporary duty of 2.5% is applied to all imports.

Foreign Agriculture indicated the duty on vegetable oils entering Pakistan at the 40% level.

(18) SOUTH EAST ASIA

(a) Conclusion

The countries comprising South-East Asia are: Burma, Cambodia, Laos, South Vietnam and Thailand. Of this group of countries, Burma and Thailand are the only participants in the world oil market. No doubt the South Asian war, centred in South Vietnam, Cambodia and Laos in varying intensities, has affected their export availabilities.

The increase in oil consumption lags behind the rate of population growth. This fact is probably an effect of the lengthy war. Once hostilities subside, the latent demand will grow as the various economies expand. At present, little potential exists for rapeseed oil or meal imports from Canada. No rapeseed oil or meal has been imported into this region in the past.

(b) Production, Trade and Apparent Consumption

Thailand is the largest producer of soybeans in the region. Japan has been aiding Thailand to expand her soybeans as Japan desires to diversify her sources of agricultural imports. The almost halving of soybean oil apparent consumption was caused by the marked reduction of imports into Burma. Since 1967, Burma has significantly reduced soybean oil imports.

# APPARENT CONSUMPTION OF SOYBEAN OIL AND MEAL

## SOUTH EAST ASIA

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	13.1 <sub>(1)</sub>	13.5	
<u>Imports</u>			
-Oil	<u>12.2</u>	<u>1.0</u>	
Total	25.3	14.5	
<u>Exports</u>			
-Oil Equivalent	<u>.5</u>	<u>1.0</u>	
APPARENT CONSUMPTION	24.8	13.5	or 7.6% annual decrease
<u>MEAL</u>			
<u>Domestic</u> - meal equivalent	57.5 <sub>(1)</sub>	59.3	
<u>Imports</u>	<u>-</u>	<u>-</u>	
Total	57.5	59.3	
<u>Exports</u>			
-Meal Equivalent	3.1	4.5	
-Meal	<u>2.5</u>	<u>6.7</u>	
Total	5.6	11.2	
APPARENT CONSUMPTION	51.9	48.1	or 1.2% annual decrease

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(1) 1966 figure only



Cottonseed production remained static over the last six years with Burma and Thailand being the main producers. Increasing proportions have been exported in the past few years. No cottonseed components were imported between 1965-66 and 1969-70.

APPARENT CONSUMPTION OF COTTONSEED OIL AND MEAL  
SOUTH EAST ASIA

	<u>1965-66 Average</u>	<u>1969-70 Average</u>
	(1,000 Metric Tons)	
<u>OIL</u>		
<u>Domestic</u> - oil equivalent	16.3 <sub>(1)</sub>	16.0
<u>Imports</u>	-	-
Total	16.3	16.0
<u>Exports</u>		
-Oil Equivalent	2.1	6.2
APPARENT CONSUMPTION	14.2	9.8 or 5.2% annual increase
<u>MEAL</u>		
<u>Domestic</u> - meal equivalent	70.5 <sub>(1)</sub>	69.0
<u>Imports</u>	-	-
Total	70.5	69.0
<u>Exports</u>		
-Meal Equivalent	9.3	26.7
-Meal	6.8	-
Total	16.1	26.7
APPARENT CONSUMPTION	54.4	42.3 or 3.7% annual decrease

(1) 1966 figure only

Groundnut oil consumption increased during the study period. This was due to larger domestic availabilities. Like other developing regions, minimal quantities of the raw material enters the world market.

# APPARENT CONSUMPTION OF GROUNDNUT OIL AND MEAL

## SOUTH EAST ASIA

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Production</u> - oil equivalent	241.8 <sub>(1)</sub>	317.0	
<u>Imports</u>			
-Oil	<u>1.4</u>	<u>-</u>	
Total	243.2	317.0	
<u>Exports</u>			
-Oil Equivalent	<u>7.8</u>	<u>2.8</u>	
APPARENT CONSUMPTION	235.4	314.2	or 5.6% annual increase
<u>MEAL</u>			
<u>Production</u> - meal equivalent	307.0 <sub>(1)</sub>	415.0	
<u>Imports</u>	<u>-</u>	<u>-</u>	
Total	307.0	415.0	
<u>Exports</u>			
-Meal Equivalent	9.9	3.5	
-Meal	<u>52.2</u>	<u>33.0</u>	
Total	62.1	36.5	
APPARENT CONSUMPTION	244.9	378.5	or 9.1% annual increase

(1) 1966 figure only

Copra and copra by-products are by far the largest indigenous oil-bearing material. Compared to volume of production, exports are minimal.

APPARENT CONSUMPTION OF COCONUT OIL AND MEAL  
SOUTH EAST ASIA

	<u>1965-66 Average</u> (1,000 Metric Tons)	<u>1969-70 Average</u>
<u>OIL</u>		
<u>Domestic</u> - oil equivalent	174.7 <sub>(1)</sub>	144.6
<u>Imports</u>		
-Oil	<u>4.1</u>	<u>2.0</u>
Total	178.8	146.6
<u>Exports</u>	<u>-</u>	<u>-</u>
APPARENT CONSUMPTION	178.8	146.6 or 3.0% annual decrease
<u>MEAL</u>		
<u>Domestic</u> - meal equivalent	95.6	79.1
<u>Imports</u>	<u>-</u>	<u>-</u>
Total	95.6	79.1
<u>Exports</u>		
-Meal	<u>7.5</u>	<u>8.5</u>
APPARENT CONSUMPTION	88.1	70.6 or 3.3% annual decrease
<hr/>		
(1) 1966 figure only		

No meals are imported into this region. Small quantities of soybean, groundnut and copra meals are exported.

(19) EAST ASIA AND PACIFIC ISLANDS

(a) Conclusion

The East Asia and Pacific Islands region offer a tremendous export potential for enlarged amounts of rapeseed oil. At present, Hong Kong is the only country actually importing rapeseed oil. Since Hong Kong does not have rapeseed crushing facilities, these imports would be in oil form. However, potential also exists at present in Taiwan if political differences can be eliminated. As rapeseed oil and soybean oil are interchangeable, the accelerated soybean imports could probably be offset by rapeseed and rapeseed oil imports. This assumes reasonably equitable tariffs for both rapeseed and soybean oil. South Korea, while insignificant at present, is emerging as a net importer of vegetable oils. As a grower of rapeseed, South Korea is familiar with rapeseed oil. The remaining main oilseed and oil importer is Singapore. This country acts as the main distribution centre of East Asia and the Pacific Islands oils. For example, the imports of coconut oil and palm oil are usually transshipments to other countries.

As livestock and poultry production expands, so will the domestic consumption of meal. The exports of copra meal are primarily from Malaysia and Indonesia and other Pacific Island countries. Virtually no vegetable meal is traded - that is imported or exported - with East Asian countries. However Taiwan's expanding hog and cattle industries, together with recently developed commercial broiler and egg producers, indicate an increasing market for feedstuffs. The crushing of imported soybeans, provide most of this high-protein supplement at present. Also, South Korea will be increasing her feedstuff imports. This country's familiarity with rapeseed possibly could offer Canada an immediate potential market for rapeseed meal.

(b) Production, Trade and Apparent Consumption

The nations comprising this region are frequently termed "Pacific Rim" countries. As a whole, this region is a net exporter. However, many individual

countries - Hong Kong, Singapore, Taiwan and South Korea - are net importers. The main oil suppliers are Indonesia, Philippines and Malaysia. Vegetable oil consumption has grown spectacularly during the 1965-66 to 1969-70 period.

While rapeseed output expanded during the study period, the quantity is still small. South Korea is the major grower with minimal production in Taiwan. The significant relative increase in apparent consumption came from Hong Kong's larger rapeseed oil imports. Mainland China was the principal supplier of rapeseed oil.

APPARENT CONSUMPTION OF RAPESEED OIL AND MEAL  
EAST ASIA & PACIFIC ISLANDS

	<u>1965-66 Average</u>	<u>1969-70 Average</u>
	(1,000 Metric Tons)	
<u>OIL</u>		
<u>Domestic</u> - oil equivalent	7.8 <sub>(1)</sub>	13.1
<u>Imports</u>		
-Oil Equivalent	-	3.9
-Oil	<u>13.3</u>	<u>23.8</u>
Total	21.1	40.8
<u>Exports</u>		
-Oil	<u>.7</u>	<u>1.3</u>
APPARENT CONSUMPTION	20.4	39.5 or 15.9% annual increase
<u>MEAL</u>		
<u>Domestic</u> - meal equivalent	11.4 <sub>(1)</sub>	19.1
<u>Imports</u>		
-Meal Equivalent	<u>-</u>	<u>5.7</u>
Total	11.4	24.8
<u>Exports</u>	<u>-</u>	<u>-</u>
APPARENT CONSUMPTION	11.4	24.8 or 19.6% annual increase
<hr/>		
(1) 1966 figure only		



Production of soybeans is concentrated mainly in South Korea, Taiwan and Indonesia. While the output of soybeans increased the tremendous growth in soybean oil apparent consumption resulted from imports. Taiwan is by far the largest importer. The accelerated imports into Taiwan were stimulated by increasing farm costs, urbanization and rising per capita income. Also, land is fairly scarce of domestic production.

APPARENT CONSUMPTION OF SOYBEAN OIL AND MEAL  
 ----- EAST ASIA & PACIFIC ISLANDS -----

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	115.6 <sub>(1)</sub>	128.9	
<u>Imports</u>			
-Oil Equivalent	37.4	116.9	
-Oil	<u>10.1</u>	<u>5.8</u>	
Total	163.1	251.6	
<u>Exports</u>			
-Oil Equivalent	<u>-</u>	<u>1.1</u>	
Total	-	1.1	
APPARENT CONSUMPTION	163.1	250.5	or 8.9% annual increase
<u>MEAL</u>			
<u>Domestic</u> - meal	507.2 <sub>(1)</sub>	565.6	
<u>Imports</u>			
-Meal Equivalent	164.1	512.9	
-Meal	<u>8.7</u>	<u>51.7</u>	
Total	680.0	1,130.2	
<u>Exports</u>			
-Meal Equivalent	-	5.0	
-Meal	<u>-</u>	<u>-</u>	
Total	-	5.0	
APPARENT CONSUMPTION	680.0	1,125.2	or 10.9% annual increase

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(1) 1966 figure only

The regional production of cottonseed remained stable during the last six years. Also, the imports of cottonseed oil only increased slightly. Compared to the consumption of other vegetable oils, cottonseed oil is small.

APPARENT CONSUMPTION OF COTTONSEED OIL & MEAL  
 ----- EAST ASIA & PACIFIC ISLANDS -----

	<u>1965-66 Average</u> (1,000 Metric Tons)	<u>1969-70 Average</u>	
<u>OIL</u>			
<u>Domestic - oil equivalent</u>	2.6 <sub>(1)</sub>	2.6	
<u>Imports</u>			
-Oil Equivalent	.2	.2	
-Oil	<u>2.6</u>	<u>2.9</u>	
Total	5.4	5.7	
<u>Exports</u>			
-Oil Equivalent	-	.2	
-Oil	<u>.4</u>	<u>.1</u>	
Total	.4	.3	
APPARENT CONSUMPTION	5.0	5.4	or 1.3% annual increase
<u>MEAL</u>			
<u>Domestic - meal equivalent</u>	11.0 <sub>(1)</sub>	11.0	
<u>Imports</u>			
-Meal Equivalent	<u>.8</u>	<u>1.0</u>	
Total	11.8	12.0	
<u>Exports</u>			
-Meal Equivalent	<u>-</u>	<u>1.0</u>	
APPARENT CONSUMPTION	11.8	11.0	or 1.1% annual decrease

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(1) 1966 figure only

While groundnut production is sizeable, minimal groundnuts or oil leave the region. Groundnut oil is the preferred cooking oil in some countries of this region.

APPARENT CONSUMPTION OF GROUNDNUT OIL AND MEAL  
 ----- EAST ASIA & PACIFIC ISLANDS -----

	<u>1965-66 Average</u> (1,000 Metric Tons)	<u>1969-70 Average</u>	
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	253.0 <sub>(1)</sub>	275.7	
<u>Imports</u>			
-Oil Equivalent	13.2	9.4	
-Oil	<u>17.9</u>	<u>21.0</u>	
Total	284.1	306.1	
<u>Exports</u>			
-Oil Equivalent	-	14.0	
-Oil	<u>7.9</u>	<u>5.8</u>	
Total	7.9	19.8	
APPARENT CONSUMPTION	276.2	286.3	or .6% annual increase
<u>MEAL</u>			
<u>Domestic</u> - meal equivalent	322.0 <sub>(1)</sub>	350.8	
<u>Imports</u>			
-Meal Equivalent	16.9	11.9	
-Meal	<u>-</u>	<u>-</u>	
Total	338.9	362.7	
<u>Exports</u>			
-Meal Equivalent	<u>-</u>	<u>17.9</u>	
APPARENT CONSUMPTION	338.9	344.8	or .3% annual increase

(1) 1966 figure only

Malaysia and Indonesia are the major producers of oil palms in the region. Beginning in 1961, Malaysian tree plantings sharply enlarged on former rubber tree plantations. By 1966, Malaysia was the world's largest producer of palm oil. A palm tree requires  $3\frac{1}{2}$  - 4 years to bear the first fruit and peak production from a tree is attained between the 10th to 15th year. Depending on tree management, the economic life of a palm tree varies between 25 - 40 years. The present Malaysian oil palm acreage is expected to double by 1975. Other major world producers were encountering setbacks during Malaysia's expansion period. Congo (Kinshasa) and Nigeria's palm oil production was severely disrupted due to civil strife.

Indonesia is the second largest exporter of palm oil. Like Malaysia, most palm oil is produced on estates. Since 1966, plantings have increased to rejuvenate her aging palm plantations. Previous to 1966, Indonesia's economic problems had depressed palm oil output and exports.

APPARENT CONSUMPTION OF PALM OIL  
EAST ASIA     &     PACIFIC ISLANDS

	<u>1965-66 Average</u>	<u>1969-70 Average</u>
	(1,000 metric tons)	
<u>Production</u>	3,640.0 <sub>(1)</sub>	5,808.0
<u>Imports</u>	<u>53.8</u>	<u>127.9</u>
Total	3,693.8	5,935.9
<u>Exports</u>	<u>367.0</u>	<u>661.1</u>
APPARENT CONSUMPTION	3,326.8	5,274.8 or 9.8% annual increase

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(1) 1966 figure only

APPARENT CONSUMPTION OF PALM KERNEL OIL & MEAL  
 ----- EAST ASIA & PACIFIC ISLANDS -----

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	372.2 <sub>(1)</sub>	597.4	
<u>Imports</u>			
-Oil Equivalent	<u>3.2</u>	<u>6.8</u>	
Total	375.4	604.2	
<u>Exports</u>			
-Oil Equivalent	25.2	39.8	
-Oil	<u>.3</u>	<u>2.0</u>	
Total	25.5	41.8	
APPARENT CONSUMPTION	349.9	562.4	or 10.1% annual increase
<u>MEAL</u>			
<u>Domestic</u> - meal equivalent	411.8 <sub>(1)</sub>	660.9	
<u>Imports</u>			
-Meal Equivalent	<u>3.5</u>	<u>7.5</u>	
Total	415.3	668.4	
<u>Exports</u>			
-Meal Equivalent	<u>27.9</u>	<u>44.0</u>	
APPARENT CONSUMPTION	387.4	624.4	or 10.2% annual increase

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(1) 1966 figure only

East Asia and the Pacific Island are the world's largest suppliers of copra and its by-products. The Philippines alone is principal single supplier of copra. This region plus several countries from South East Asia (Ceylon, India and Thailand) have formed the Asian Coconut Community. This association, which provides 80% of the world's supply of copra, promotes and co-ordinates the activities of the member countries' industry by providing training, research and processing to improve production and marketing. Production of copra recovered in 1971 following declined output during the previous three years, when drought conditions prevailed in the Philippines. The Philippine government is now



encouraging export of finished goods rather than raw coconut material. The relatively static consumption of coconut oil in the region between 1965-1970 was caused by climatic conditions rather than declining demand.

APPARENT CONSUMPTION OF COCONUT OIL & MEAL  
 ----- EAST ASIA & PACIFIC ISLANDS -----

	<u>1965-66 Average</u>	<u>1969-70 Average</u>	
	(1,000 Metric Tons)		
<u>OIL</u>			
<u>Domestic</u> - oil equivalent	16,678.0 <sub>(1)</sub>	15,818.9	
<u>Imports</u>			
-Oil Equivalent	23.4	37.6	
-Oil	<u>11.4</u>	<u>16.4</u>	
Total	16,712.8	15,872.9	
<u>Exports</u>			
-Oil Equivalent	830.9	581.6	
-Oil	<u>350.7</u>	<u>405.9</u>	
Total	1,181.6	987.5	
APPARENT CONSUMPTION	15,531.2.	14,885.4	or .7% annual decrease
<u>MEAL</u>			
<u>Domestic</u> - meal requirements	9,121.0 <sub>(1)</sub>	8,651.0	
<u>Imports</u>			
-Meal Equivalent	<u>12.8</u>	<u>20.5</u>	
Total	9,133.8	8,671.5	
<u>Exports</u>			
-Meal Equivalent	454.4	318.1	
-Meal	<u>332.4</u>	<u>420.3</u>	
Total	786.8	738.4	
APPARENT CONSUMPTION	8,347.0	7,933.1	or .8% annual decrease

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(1) 1966 figure only

Relatively speaking, rapeseed and soybean meal apparent consumption has increased markedly over the study period. More and more countries in this region are attempting to become self-sufficient in meat production. South Korea's current five-year plan covering 1972-76 emphasizes livestock development as one goal. Another example is Malaysia's 30-year plan to eradicate their perpetual dairy and beef deficiency.

(c) Import Tariffs on Rapeseed Oil and Meal

The following countries import tariffs were available:

TAIWAN

	<u>Tariff No.</u>	<u>Duty Rates</u>
Rapeseed Oil	597	25%
Rapeseed Meal	765	40%

In addition to the import duty, a surcharge of 30% of the duty is applied to all imports. An import license is required.

SINGAPORE

Rapeseed Oil	442.909	Free
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Not subject to import control.

Rapeseed Meal	221.909	Free
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Open general license.

HONG KONG

Rapeseed Oil	Free
Rapeseed Meal	Free

Not subject to import control.

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APPENDIX A - DESCRIPTION AND USES OF OILSEEDS  
AND OILSEED PRODUCTS (1)

OILSEEDS

Soybeans

In general, soybeans are erect plants, growing in some cases to a height of over 3 feet. The hairy pods are borne in clusters of 3 to 5 and range from 1.5 to 3.5 inches long. The plant, a summer legume, has about the same climate and soil requirements as corn, but the time required to mature can vary from about 75 to 200 days, depending on the variety.

Peanuts

The peanut plant, an annual legume, yields kernels enclosed in a fibrous pod. The peanut kernel generally accounts for around 70 percent of the combined weight of the kernel and the pod (or shell). After the small single blossoms have bloomed, the flower stems bend down and force the little pods into the soil, where they develop and mature. Peanuts are known as groundnuts and by other names in different localities. The plants thrive in light sandy soils well provided with plant foods in regions where the rainfall during the growing season does not exceed 26 inches.

Cottonseed

Cottonseed is a byproduct of the cotton plant. The oil and protein content of cottonseed vary depending on the variety of cotton and soils, locality, and seasonal and climatic conditions. The hulls contain 0.3 to 1 percent oil and the kernel 28 to 40 percent. As a rule, seed from a long-staple cotton has the higher oil content.

Sunflowerseed

Sunflowers grow best in a warm summer climate and rich deep soils. Sunflower varieties can be divided into the tall or giant types that reach a height of about 8 to 14 feet; dwarf types that reach 4 to 7 feet; and intermediate types. The tall varieties are the main ones grown in the United States, where the seed is grown principally for birdseed. As an oilseed crop, the dwarf varieties are preferable since their shorter and more uniform height makes mechanical harvesting more practical.

In recent years, Russia has developed new dwarf varieties that are vastly improved with respect to length of the vegetative cycle, homogeneity of the crop, and resistance to disease. The oil content has also been increased considerably. Approximately 80 percent of the world's sunflowerseed oil is now from the improved varieties.

### Rapeseed

Rape is very closely related to field mustard and to the rutabaga. It resembles the latter in many ways except that the tap root of the rape does not thicken into a tuber. Plants grow 2 or 3 feet high and have thick, succulent leaves and stems. Varieties that are planted early and produce seeds in the same year are known as summer rape, while those that live in the winter and mature their seeds in the second year are known as winter rape. Rape production is confined almost wholly to the temperate and warm temperature zones.

### Coconut

Coconut palm cultivation is restricted to a relatively narrow belt within the tropics. The trees grow best in areas with high temperatures, high rainfall and alluvial soils. These conditions are found mainly on coastal regions or islands.

The tree usually grows 50 to about 100 feet high. The trees begin to bear nuts in the sixth to seventh year and they bear in quantity when 10 or 12 years old. The nuts take 9 to 12 months to ripen and may be harvested several times a year. Mature trees on well-managed plantations may yield about 60 nuts. Plantations contain some 60 to 80 trees an acre. Most coconuts are produced in small groves where the number of nuts per tree is well below 60. One coconut yields approximately 2 pounds of copra.

Copra is the dried kernel or "meat" of the coconut from which the coconut oil is expressed. Fresh coconut contains 30 to 40 percent oil, while copra usually contains 60 to 65 percent.

### Oil Palm

The oil palm is a perennial that yields several "palm bunches" in the crown of the tree. Each bunch may contain 200 to 2,000 individual fruits. Each individual "palm fruit" is approximately 2.0 inches in length and about 0.75 inch in diameter. The fruit contains



three main parts: (1) the outer fleshy pulp, or pericarp, which contains the palm oil; (2) a hard-shelled nut called the palm nut, which is enclosed by the pericarp; (3) inside the nut is the palm kernel which yields palm kernel oil and cake. The fibrous residue remaining after the palm oil has been expressed from the pericarp is of little value and is sometimes used as fuel, as are the shells from the palm nuts. Palm oil is high in palmitic acid, while palm kernel oil is high in lauric acid.

After they are ripe, palm fruits cannot be allowed to hang long on the tree, but must be harvested within 6 to 9 days to prevent the formation of free fatty acids which make the palm oil inedible. The fruits ripen in about 6 months; two crops a year are obtained. While some fruit is harvested every month, two peaks of production usually occur.

The kernel and the shell are a large part of the whole fruit. To increase the oil palm yield, new varieties of oil palms with a smaller shell are being developed. The palm oil and palm kernel oil yields of the various varieties of oil palm vary considerably.

The best soils for oil palms are well-drained loams or light clays located in flat coastal lands or inland alluvial plains up to 1,000 feet in altitude. Rainfall of 100 inches or more, well distributed throughout the year, and a climate free from prolonged cold spells are desirable.

### Olives

Despite the ability of olive trees to grow in the poorest types of soil, they flourish only in areas with a Mediterranean-type climate. This climate can be summarized as a long intensely hot summer; a relatively mild and rainy winter; and a short intermediate fall and spring. Olive trees require a minimum amount of rainfall in comparison with other crops in the Mediterranean region. A prolonged hot summer is necessary for the fruiting and the maturity of the olive crop.

It takes 6 or more years for an olive tree to mature into production. The profitable fruit-bearing period can be put at a minimum of 50 years in dry zones and much longer in areas of more favourable conditions. Many varieties of olive trees have been developed over the centuries. Olive production often follows a 2-year cycle, with a good crop being followed by a medium or poor crop.

Olives gathered for oil production are highly perishable and must be processed shortly after harvest to ensure good quality and yield. Most other oilseeds, of course, can be stored. The major component of olive oil production is labor. The general availability of cheap labor is a major reason why the olive oil industry has continued to flourish in the less developed parts of the Mediterranean region.

During 1960-65, some 96 percent of the total olives produced were utilized in oil processing; the remainder were eaten directly.

### Flax

Flax grown to produce fibre for making linen and flax grown for its oilseed belong to the same species, but are of different varieties, and generally speaking the two products are not obtained from the same crop. The varieties of flax grown for fiber have long stems with relatively few branches, while the varieties grown for oilseed have shorter stems and more branches and produce a greater quantity of seed.

Flax is an annual crop which is grown in many parts of the world, principally in temperate regions. It is grown primarily as a rainfed, cold-season crop and thrives best in heavy soils with high moisture - retaining capacity.

## VEGETABLE OILS

A frequent subclassification of fats and oils (not only vegetable oils) is "hard" and "soft" oils. In temperate climates, the soft oils are liquid and the hard oils are not. In general, a hard oil has relatively more saturated than unsaturated fatty acids, while just the opposite is true of a soft oil. Crudely speaking, fatty acids are called unsaturated if they can absorb more hydrogen atoms; they are called saturated if they are resistant to more hydrogen atoms.

A breakdown of the vegetable oils in this study into the "hard" and "soft" classification follows:

### Hard Oils

Coconut  
Palm kernel  
Palm

### Soft Oils

Olive  
Rapeseed  
Peanut  
Cottonseed  
Sunflowerseed  
Soybean

Generally speaking, there is a direct relationship between the fatty acid composition of the oil and important qualities such as melting point, texture, and plasticity. The hard oils, because of their relatively large amount of saturated fatty acids, have a higher melting point than do the soft oils. Plasticity, the ability to retain a shape attained by pressure deformation, is enhanced when there is a broad and balanced representation of the several fatty acids.

### Soybean Oil

Considerable quantities of soybean oil are used in salad oils and cooking fats. Blends of soybean oil with olive oil are used extensively. However, the use of the soybean oil for these purposes is limited to some extent by its tendency to develop a bad flavor or odor when stored in contact with air, or when heated to the temperatures used in deep fat frying. This problem is called "reversion".

Reversion is due mainly to the fact that the soybean oil contains linolenic acid. Hydrogenation, which saturates the linolenic fatty acids, greatly reduces the oxidization problem. Thus, the major use of soybean oil is in the manufacture of margarine fats and household shortenings. Even in these products, however, the percentage of soybean oil has to be limited since the oil continues to revert faster than do the other oils.

### Peanut Oil

Peanut oil is well suited for use either unhydrogenated or hydrogenated. The unhydrogenated oil is valued as a salad and cooking oil because it remains liquid at refrigerator temperatures, is highly stable and nonfoaming at high temperatures, and is easily deodorized to be tasteless. As a salad oil, however, it has a greater tendency to cloud when held at low temperatures than do most other oils used as salad oils. Peanut oil is widely used in the manufacture of vegetable margarines; it is also used to some extent for cooking sardines prior to canning in olive oil. Inedible grades of the oil are used chiefly in soap.

### Cottonseed Oil

Cottonseed oil makes an excellent salad oil provided a portion of the solid glycerides is removed by the winterizing process. The oil is easily deodorized to a bland flavor and keeps relatively well. It is well suited to shortening and margarine manufacture.

### Sunflowerseed Oil

Sunflowerseed oil is well suited for use as a salad and cooking oil, and when hydrogenated, for use in margarine fats and shortening. Good grades of the oil may be refined with a low loss. The linolenic acid found in soybean oil is lacking in sunflowerseed oil, which is to the advantage of sunflowerseed oil when used as a food. The oil is also a good material for the manufacture of oil-modified alkyd resins and similar products.

### Rapeseed Oil

Until recently, rapeseed oil was at a competitive disadvantage on world markets as an edible oil because of its high erucic acid content, which gives an unpleasant taste and odor, especially when heated. Recent technological improvements in rapeseed processing techniques have largely overcome this problem. Its use for all edible oil purposes is expected to increase in the future.

### Coconut Oil

Coconut oil, as palm kernel oil, differs sharply in physical characteristics and chemical composition from most other oils. The most noticeable physical characteristic is that the oil changes abruptly from a hard and brittle solid to a clear oil within a temperature range of a few degrees. About 90 percent of the fatty acids in the oil are saturated and nearly half of these consist of lauric acid.

Coconut oil is well suited to margarine formulations where a butter-like consistency is desired. Because the oil has a low degree of unsaturation, it is resistant to rancidity caused by oxidation and therefore can be used in confections and other products which may stand for some time before consumption. The oil is not well suited for shortening and cooking fat manufacture because of its narrow plastic range.

Coconut oil is used extensively in soap manufacture (its lauric oil content yields excellent lathering characteristics) and in the chemical industries, primarily for synthetic detergents. Most industrial uses of coconut oil have become vulnerable to replacement by synthetic raw materials.



## Palm Oil

Palm oil is widely used in margarine, shortening and cooking fat because of its soft texture, long plastic range, high melting point, and stability. The refined oil is resistant to oxidation because of its moderate degree of unsaturation. It has a good flavor and keeps well. The large portion of palmitic acid in palm oil also makes it well suited for soap making.

## Palm Kernel Oil

Palm kernel oil has essentially the same characteristics and properties as coconut oil does, as well as most of the same drawbacks and advantages. Consequently, palm kernel oil is used more or less interchangeably with coconut oil. Refining losses, however, are higher with palm kernel oil. Palm kernel oil refining costs have been approximately 1 cent higher a pound than such costs for coconut oil, resulting in a market differential of that amount between the two oils.

## Olive Oil

Olive oil is seldom hydrogenated to plastic shortening consistency since cookery methods in the Mediterranean countries, where olive oil is primarily consumed, were developed on the basis of using the oil in liquid form. Good grades of virgin olive oil have a pleasing delicate flavor, which is probably the reason for its high price relative to that of other oils. Olive oil is also used for a variety of other purposes, including the manufacture of soaps, textile lubricants, cosmetics, and pharmaceutical preparations.

## Processing of Vegetable Oil

Crude vegetable oils are obtained from seeds by pressing (expelling) or by chemical extraction. The chemically-extracted oils may have to be processed further before they may be used; however, the pressed oils may or may not be used without further processing.



Five of the processing steps in the refinement of crude oil are: (1) saponification, (2) bleaching, (3) deodorizing, (4) degumming, and (5) winterizing. Not all of the vegetable oils have to go through these five steps. The chemically extracted oils must go through the saponification process, but the expelled oil may or may not be saponified.

Saponification involves the use of alkali neutralizers such as sodium hydroxide to isolate and remove certain impurities in the crude oil. During the process, the undesirable fatty acids (free fatty acids) are eliminated; but unfortunately, some oils also lose varying amounts of pure oil at the same time. For example, palm kernel oil has a higher loss than does coconut oil, and this increases the price differential of palm kernel oil relative to that of coconut oil.

Bleaching involves mixing the oil with a substance that has a high color-absorption power (such as diatomaceous earth, carbon black earth, or active earth) and then straining the mixture, leaving the color behind with the absorbing agent.

In addition to getting rid of undesirable color, odors and gum-like substances may be eliminated and oil may be winterized.

In the winterizing step, the temperature is decreased to 35 degrees Fahrenheit and those parts of the oil that would solidify are precipitated out. This step for cottonseed oil and the degumming step for soybean oil increase the price differential of the oils relative to other vegetable oils. However, with the exception of these price differentials, vegetable oils generally have the same processing costs.

### Hydrogenation of Vegetable Oils

The fact that hard oils have a relatively higher level of saturated fatty acids than do soft oils does not mean that these levels have to remain unchanged. Since hydrogen is a colorless, tasteless, odorless, and very light gas and hydrogenation is the process of exposing to or treating with hydrogen, the level of saturated fatty acids may be adjusted upward by the process of hydrogenation. If a selective process is used, all acids are affected about the same time. Selective hydrogenation is generally used, as it gives the end product a higher resistance to oxidation and, therefore, less likelihood of becoming rancid.

## Uses of Vegetable Oils

Vegetable oil uses may be broadly classified as edible and inedible. Edible uses include vegetable oils being used in (1) margarine, (2) salad oil, (3) cooking oil, (4) shortening, (5) confections, and (6) filling for baked goods. Inedible uses of vegetable oils include use in (1) soaps - as a lathering agent, (2) paints - as a drying agent, (3) lubricants, (4) cosmetics, (5) pharmaceutical preparations, (6) textile lubricants, (7) printing inks, (8) linoleums, and (9) varnishes.

## OILCAKES

In general, oilcakes are used as a protein concentrate in animal feeds. The main components of meals are protein, oil, fibre, nitrogen-free extract, and mineral matter. The components other than protein are more important in compound feeds for poultry and hogs than in such feeds for cattle.

Protein is the general term used for some 24 or more amino acids<sup>(4)</sup>. Amino acids that cannot be made in the body from other substances or that cannot be made in sufficient amounts are called essential amino acids. Protein for the growth of protein tissues or for the formulation of milk cannot be made by an animal unless it has an adequate supply of each of the essential amino acids. A shortage of a single one in a feed ration will limit the use of all the others and therefore reduce the efficiency of the entire ration. In the processing procedure, variations in temperature, pressure, and retention time inside the cooker, for example, cause marked differences in the protein content of an oilcake. Thus, an oilcake from one particular oilseed from some suppliers obtains a premium price over other oilcakes from the same oilseed.

## Comparison of the Nutritive Values of Different Cakes

Cakes of different oilseeds processed in different manners possess different amounts of protein, oil and fibre. Digestibility of each of these components differs widely depending on the type of animal to which the oilcake is fed. Hence, it is most difficult to theoretically compare a nutritive value of the different cakes. The feed requirements of the animal must be considered along with the digestibility coefficient of each oilcake.

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(4) Generally speaking, extracted cakes are as good a protein concentrate as expeller cakes with a higher oil content. Expeller cakes, however, are preferred in some countries perhaps because of their better palatability or the extra energy the oil adds to the cakes.

## Uses of Individual Meals

Soybean Meal -- Soybean meal is one of the best protein supplements for dairy and beef cattle. For swine and poultry, it ranks ahead of all other common protein supplements of plant origin because of the higher quality of its protein. Soybean meal lacks methionine and vitamins, especially as a feed for chickens; another disadvantage is its limited phosphorous and calcium content.

During processing, soybean meal is subjected to toasting, which destroys the tripsin-inhibitor which is toxic when fed to animals.

Cottonseed meal -- This product is a good protein supplement for dairy cows, beef cows and sheep. Cottonseed meal, however, does not furnish protein of high quality for swine or poultry, chiefly because it is rather low in lysine. Therefore, it should be used in combination with such supplements as tankage, meat scraps, fishmeal, milk byproducts, or soybean meal. Cottonseed meal is one of the richest feeds in phosphorous but it is low in calcium.

The toxic compound Gossypol in cottonseed meal (up to one percent of the ration) has no effect on ruminants, but care has to be taken in feeding the oilcake to pigs, poultry and calves.

Linseed Meal -- Linseed meal is a high-protein and palatable feed for dairy cattle, beef cattle and sheep. It seems to have a conditioning effect on cattle and has a slight laxative effect which aids in keeping stock healthy. Since linseed meal is deficient in lysine and methionine, it should be used in combination with other protein supplements when fed to swine or poultry. Also, when fed in amounts larger than five percent of the total ration, it has a depressing effect on the growth of chicks and poults.

The toxicity due to linase in linseed meal is generally destroyed by the high temperature of operation during screwpressing.

Sunflowerseed Meal -- Sunflowerseed meal is a good feed for stock and keeps well. The main disadvantage is the low-lysine content for feeding poultry and swine. Also, the quantity of hulls added to the kernels and the method of processing can limit the use of this meal in swine and poultry feeds because of its high-fibre content. Sunflower meal can be used as a supplement to soybean meal since it is rich in methionine, vitamin B12, and calcium and phosphorus.

Copra Meal -- Copra meal is a good feed supplement for cattle, particularly dairy cattle, because of its protein content, the characteristic of its residual oil, its palatability, and its high capacity for absorbing molasses. It is not a good feed for swine and poultry because of its high-fibre content.

The meal's lysine content is high, and lysine is the limiting amino acid in feeding non-ruminants. Copra meal contributes significant amounts of the B-complex vitamins to rations.

Peanut Meal -- Peanut meal is a good and palatable supplementary protein concentrate for dairy and beef cattle. It is also a good supplement for mature hogs but it produces soft pork. For chickens and young pigs, it is primarily deficient in methionine, cystine, lysine and tryptophan.

Many compound feed manufacturers have generally stopped using peanut meal in feed for poultry and young pigs because of the danger of aflatoxin - which can be fatal.

Rapeseed Meal -- The use of rapeseed meal has been limited in livestock feeding because of the presence of active goitrogens. Goitrogens are enzymes that cause the meal to be toxic to animals - particularly poultry and pigs, in which it causes growing problems and may lead to death. Recently, however, processing methods have been developed to improve the quality and nutritional value of the meal as an animal feed. Although rapeseed meal is not especially palatable, it has a protein content of around 35 percent with a good amino acid balance. Its use for animal feeding will probably expand in the future.



Palm Kernel Meal -- This meal varies considerably in composition and especially in fibre content. Palm kernel meal has been used chiefly in Europe, where it is mostly fed to dairy cows.

Palm kernel meal tends to produce hard fat when fed to stock and thus makes a firm butter and pork of good quality. It is not very palatable to pigs and should not form more than about one-fifth of a ration.

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(1) Most of this section was derived from World Supply and Demand Prospects for Oilseeds and Oilseed Products in 1980, U.S.D.A. Washington, D.C. 1971.



APPENDIX B - PRODUCTION OF OILSEEDS, PALM  
OIL AND OLIVE OIL BY MAJOR  
PRODUCING COUNTRIES

Table 1	-	Soybeans	<u>Page</u> B1
Table 2	-	Cottonseed	B2
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Table 5	-	Rapeseed	B5
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Table 7	-	Palm Kernels	B7
Table 8	-	Babassu Kernels	B8
Table 9	-	Palm Oil	B9
Table 10	-	Olive Oil	B10



TABLE 1

## SOYBEANS:

Production by major producing countries and estimated world total, annual 1964-70

Country	1964	1965	1966	1967	1968	1969	1970 1/
	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons
United States	19,076	23,014	25,269	26,564	30,022	30,653	30,911
(1,000 bushels)	( 700,921	845,608	928,481	976,060	1,103,129	1,126,314	1,135,769 )
Canada	190	219	245	220	246	209	283
Brazil	305	523	595	716	654	950	1,332
China, Mainland 2/	6,940	6,840	6,800	6,950	6,480	6,260	6,940
Indonesia	392	410	417	416	381	416	----
Japan	240	230	199	190	168	136	125
Others	927	1,113	1,330	1,436	1,627	1,664	1,674
World Total	28,070	32,349	34,855	36,492	39,578	40,288	3/41,692
(1,000 bushels)	( 1,031,385	1,188,610	1,280,689	1,340,838	1,454,245	1,480,323	3/1,531,903 )

1/ Preliminary. 2/ Estimated. 3/ Includes estimates for the above countries for which data are not available.

SOURCE: U.S.D.A. Foreign Agriculture Circular, February, 1971.

TABLE 2

COTTONSEED: Production by major producing countries and estimated world total, annual 1964-70 1/

COUNTRY	Year beginning August 1 <u>2/</u>					
	1964	1965	1966	1967	1968	1969 <u>3/</u>
	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons
United States	5,658	5,522	3,592	2,912	4,209	3,798
Mexico	1,045	1,143	980	871	1,067	762
Argentina	280	234	177	148	228	283
Brazil	928	1,105	905	1,193	1,458	1,370
Peru	275	220	200	197	180	165
U. S. S. R.	3,465	3,720	3,935	3,935	3,935	3,775
United Arab Republic	912	962	820	758	755	885
Sudan	291	285	343	335	386	420
Turkey	529	527	611	634	697	670
China, Mainland	2,775	2,790	2,750	2,955	2,875	2,875
India	2,374	2,008	2,008	2,312	2,138	2,225
Pakistan	772	846	928	1,056	1,073	1,093
Others	2,714	2,810	2,806	2,732	3,102	3,168
World Total	22,018	22,172	20,055	20,038	22,103	21,489
						21,748

1/ Data for the United States, Egypt, the Sudan, and Turkey were compiled from official reports; data for other countries were calculated from lint production estimates. 2/ Years shown refer to years of harvest. 3/ Preliminary.

SOURCE: U.S.D.A., Foreign Agriculture Circular, February, 1971.

TABLE 3

PEANUTS 1/: Production by major producing countries and estimated world total, annual 1964-70

Country	1964	1965	1966	1967	1968	1969	1970 2/
	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons
United States	953	1,081	1,093	1,122	1,153	1,145	1,355
Argentina	333	439	411	354	283	217	234
Brazil	470	743	894	749	754	730	821
Senegal	1,020	1,170	870	1,005	830	800	585
Niger	184	277	288	298	252	281	231
Mali	150	154	159	119	100	115	105
Nigeria	1,250	1,685	1,755	1,255	1,445	1,365	955
China, Mainland 3/	2,290	2,300	2,360	2,450	2,150	2,300	2,400
India	5,888	4,231	4,411	5,731	4,630	5,144	6,400
Indonesia	392	340	376	346	392	368	370
Others	3,244	3,250	3,617	3,840	3,289	3,964	3,971
World Total	16,174	15,670	16,234	17,269	15,278	16,419	17,427

1/ Peanuts in the shell. Southern Hemisphere peanut crops harvested from April to June are combined with those of the Northern Hemisphere harvested from September through December of the same year. 2/ Preliminary. 3/ Estimated.

SOURCE: U.S.D.A., Foreign Agriculture Circular, February, 1971.



TABLE 4

SUNFLOWERSEED: Production by major producing countries and estimated world total, annual 1964-70

Country	1964	1965	1966	1967	1968	1969	1970 <u>1/</u>
	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons
Argentina	460	757	782	1,120	940	876	1,140
Chile	45	47	54	33	43	28	28
Uruguay	63	39	99	76	49	63	65
Bulgaria	337	357	423	478	459	541	400
Hungary	114	75	102	79	94	104	110
Romania <u>2/</u>	518	564	671	720	730	747	769
Yugoslavia	260	265	282	250	309	390	250
U.S.S.R. <u>3/</u>	5,573	5,013	5,658	6,079	6,150	5,849	5,600
South Africa	78	74	102	101	82	89	102
Turkey	160	160	200	230	230	310	380
Others	196	186	214	192	219	265	400
World Total	7,804	7,537	8,587	9,358	9,305	9,262	9,244

1/ Preliminary. 2/ Includes production from intercropping. 3/ Adjusted official estimates; Soviet data "barn yields" less 8 percent dockage.

SOURCE: U.S.D.A., Foreign Agriculture Circular, February, 1971.

TABLE 5

RAPSEED: Production by major producing countries and estimated world total,  
annual 1964-70

Country	1964	1965	1966	1967	1968	1969	1970 1/
	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons
Canada	300.1	512.6	585.1	560.2	440.0	757.5	1,617.1
Chile	50.9	60.0	77.0	60.7	47.9	63.6	65.0
Denmark	52.3	49.9	33.1	39.2	31.1	21.1	20.5
France	246.6	337.8	317.1	432.5	453.8	511.8	567.0
Germany, West	108.7	106.5	98.7	124.6	169.9	158.1	185.0
Sweden	181.1	216.5	86.5	223.6	228.4	183.0	163.5
Czechoslovakia	46.0	74.0	78.0	85.0	73.0	48.0	70.0
Germany, East	175.7	213.8	210.8	272.6	265.4	163.6	200.0
Poland	267.0	504.0	448.0	651.0	712.0	204.0	525.0
Mainland China 2/	660.0	700.0	735.0	800.0	786.0	688.0	721.0
India	903.0	1,466.4	1,275.7	1,228.0	1,567.7	1,572.1	1,507.1
Japan	134.6	125.5	94.6	79.2	68.4	48.0	30.1
Pakistan	301.8	306.8	278.4	306.8	396.3	352.6	384.0
Others	133.5	127.4	125.2	158.2	163.8	148.6	203.8
World Total	3,561.3	4,801.2	4,443.2	5,021.6	5,403.7	4,920.0	6,259.1

1/ Preliminary. 2/ Estimated.

SOURCE: U.S.D.A., Foreign Agriculture Circular, February, 1971.

TABLE 6

COPRA: Production by major producing countries and estimated world total, annual 1964-70

Country	1964	1965	1966	1967	1968	1969	1970 <sup>1/</sup>
	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons
Ceylon	322	271	223	191	187	209	-----
India	264	266	270	274	275	280	-----
<b>Indonesia</b>	648	506	585	599	620	640	640
Malaysia	161	172	179	182	196	175	187
Philippines	1,451	1,458	1,625	1,453	1,358	1,180	1,240
Fiji	42	31	26	25	28	2/28	-----
French Oceania	22	21	21	19	19	19	-----
New Guinea	91	107	100	101	117	112	-----
New Hebrides	38	29	34	42	34	38	40
Papua	17	17	16	16	17	16	-----
Mozambique	60	41	41	59	61	54	-----
Mexico	168	168	170	151	120	2/70	-----
Others	261	252	239	241	246	235	231
World Total	3,545	3,339	3,529	3,353	3,278	3,056 <sup>3/</sup>	3,132

1/ Preliminary. 2/Estimated. 3/Includes estimates for the above countries for which data is not available.

SOURCE: U.S.D.A., Foreign Agriculture Circular, February, 1971.

TABLE 7

PALM KERNELS 1/: Production by major producing countries and estimated world total, annual 1964-70

Country	1964	1965	1966	1967	1968	1969	1970 2/
	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons
Mexico	25	26	26	26	27	16	15
Cameroon	35	38	37	38	3/ 38	3/ 45	55
Congo (Kinshasa)	110	75	80	95	110	2/100	110
Dahomey	56	55	49	2/ 41	57	65	75
Guinea, Republic of 3/	22	12	28	30	33	35	35
Ivory Coast 4/	2/ 15	16	21	23	22	24	30
Liberia 3/	7	12	14	14	14	12	15
Nigeria	408	462	435	250	225	265	300
Sierra Leone 3/	53	50	56	58	53	52	60
Indonesia 4/	33	34	35	35	40	42	44
Malaysia 4/	30	36	44	52	65	79	100
Others	83	85	91	102	95	96	108
World Total	877	901	916	764	779	831	947
1/ Commercial production unless otherwise specified. 2/ Estimated. 3/ Exports.							
4/ Estates only.							

SOURCE: U.S.D.A., Foreign Agriculture Circular, February, 1971.

TABLE 8

BRAZIL: Production of babassu kernels and babassu oil, annual 1964-70

Commodity	1964	1965	1966	1967	1968	1969	1970 1/
	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons	1,000 metric tons
Babassu kernels	155	171	173	175	2/189	200	190
Babassu oil 3/	52	54	66	52	65	86	82

1/ Preliminary. 2/ Estimate. 3/ Mill production.

SOURCE: U.S.D.A., Foreign Agriculture Circular, February, 1971.



TABLE 9

PALM OIL 1/: Production by major producing countries and estimated world total, annual 1964-70

Country	1964	1965	1966	1967	1968	1969	1970 2/
	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	metric	metric	metric	metric	metric	metric	metric
	tons	tons	tons	tons	tons	tons	tons
Angola	18	15	14	16	13	11	12
Cameroon (Rep. of)	30	34	40	35	40	2/ 50	60
Congo (Kinshasa)	165	125	147	179	2/209	2/196	220
Dahomey	45	44	30	2/ 25	2/ 35	2/ 40	45
Ghana	26	37	44	56	54	2/ 55	55
Ivory Coast 3/	28	28	28	30	35	37	45
Liberia	12	15	16	17	12	12	12
Nigeria	515	530	508	325	371	425	490
Sierra Leone	39	39	40	41	43	46	50
Indonesia 3/	161	165	174	174	188	189	200
Malaysia 3/	123	150	190	226	283	351	460
Others	33	37	38	41	50	56	63
World Total	1,195	1,219	1,269	1,165	1,333	1,468	1,712

1/ Commercial production unless otherwise specified. 2/ Estimated. 3/ Estates only.

SOURCE: U.S.D.A., Foreign Agriculture Circular, February, 1971.

TABLE 10

OLIVE OIL : Production by major producing countries and estimated world total, annual 1964-71

Country	Crop year ending October 31						
	1964	1965	1966	1967	1968	1969	1970 1971 1/
	metric tons	metric tons	metric tons	metric tons	metric tons	metric tons	metric tons
Pressed Oil:							
Greece	223	135	204	180	194	154	150 200
Italy	538	304	420	320	537	385	471 370
Portugal	99	41	72	38	81	53	72 60
Spain	590	200	324	437	259	480	370 425
Turkey	65	100	52	110	60	126	50 120
Algeria	17	18	17	16	22	18	22 17
Morocco 2/	26	16	38	18	18	50	16 30
Tunisia	89	95	52	20	51	55	25 85
Others	53	95	55	64	114	63	77 41
World Total	1,700	1,004	1,234	1,203	1,336	1,384	1,253 1,348
Sulphur oil:							
Greece	25	16	23	22	23	18	18 20
Italy	62	32	40	35	57	44	45 35
Portugal	4	6	9	7	20	12	9 15
Spain	15	8	26	39	22	41	38 40
Turkey	6	20	7	22	12	18	8 24
Others	12	16	12	9	12	19	11 16
World Total	124	98	117	134	146	152	129 150
1/ Preliminary. 2/ Refers only to territory formerly known as French Morocco.							

SOURCE: U.S.D.A., Foreign Agriculture Circular, February, 1971.

APPENDIX C - WORLD TRADE IN OILSEEDS, OILS  
AND MEALS BY COUNTRY OR REGION:  
1965-66 and 1969-70 AVERAGES

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#### Central Plan

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#### Less Developed

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TABLE 1

WORLD NET EXPORTS OF OILSEEDS, OILS AND FATS  
(Thousands of Metric Tons)

	1966	1967	1968	1969	1970
<u>PRIMARILY FOR FOOD</u>					
<u>Liquid Vegetable</u>					
Soybeans	7,497	8,118	8,746	9,365	12,601
Soybean Oil	398	518	486	402	679
Total, as oil	1,747	1,979	2,010	1,928	2,947
Cottonseed	380	314	282	462	493
Cottonseed Oil	197	126	142	211	237
Total as Oil	258	176	187	285	316
Groundnuts	1,493	1,474	1,552	992	661
Groundnut Oil	414	391	431	334	379
Total, as oil	1,071	1,040	1,114	770	670
Sunflower seed	350	490	495	522	447
Sunflower Oil	592	881	861	871	629
Total, as oil	746	1,097	1,079	1,101	825
Rapeseed	640	650	759	737	887
Rapeseed oil	116	143	138	92	132
Total, as oil	366	396	434	379	478
Sesame	165	167	176	209	195
Sesame, as oil	78	78	83	98	92
Olive Oil <sup>1/</sup>	173	192	148	246	222
<u>Totals:</u>					
Seeds	10,525	11,213	12,010	12,287	15,284
Vegetable Oils	1,890	2,251	2,156	2,008	2,148
Combined, as oil	4,439	4,958	5,055	4,709	5,458
<u>Palm</u>					
Copra	1,444	1,213	1,240	1,071	906
Coconut Oil	460	388	449	370	513
Total, as oil	1,384	1,164	1,243	1,055	1,092
Palm Kernels	625	376	424	443	464
Palm Kernel Oil	83	108	112	118	114
Total, as oil	377	285	311	326	332
Palm Oil	631	496	650	714	744

TABLE 1 - continued

WORLD NET EXPORTS OF OILSEEDS, OILS AND FATS  
(Thousands of Metric Tons)

	1966	1967	1968	1969	1970
<u>Totals:</u>					
Seeds	2,069	1,589	1,664	1,514	1,370
Vegetable Oils	1,174	992	1,211	1,202	1,371
Combined, as oil	2,392	1,945	2,204	2,095	2,168
<u>ANIMAL FATS, EDIBLE</u>					
Butter (82%)	509	553	543	555	617
Lard <sup>2/</sup>	306	334	339	393	414
Total	815	887	882	948	1,031
<u>MARINE OILS, EDIBLE</u>					
Whale Oil (Production)	115	104	96	75	69
Fish Oils	511	655	716	645	563
Total	626	759	812	720	632
<u>WORLD TOTALS, PRIMARILY FOR FOOD</u>					
Oilseeds, Actual Weight	12,594	12,802	13,674	13,801	16,654
Vegetable Oils	3,064	3,243	3,367	3,210	3,519
Animal and Marine	1,441	1,646	1,694	1,668	1,663
Grand Total, oil basis	8,272	8,549	8,953	8,472	9,289

(1) Including Residue oil, partly unedible

(2) Including negligible amounts of edible tallow.

SOURCE:

Fats and Oils in Canada, Annual Review (preliminary) , 1970



TABLE 2

WORLD NET EXPORTS OF OILSEED MEALS AND FISH MEAL  
 (Thousands of Metric Tons)

	1967				1968			
	Seed <sup>1</sup> /	Meal	Total	Prot. <sup>2</sup> /	Seed <sup>1</sup> /	Meal	Total	Prot. <sup>2</sup> /
<b>Oilseed Meals</b>								
Soybean	6,413	2,635	9,048	4,162	6,909	2,970	9,879	4,544
Cottonseed	217	1,228	1,445	592	195	1,161	1,356	556
Groundnut	825	1,398	2,223	1,208	869	1,516	2,385	1,240
Sunflowerseed	181	676	857	369	183	604	787	338
Rapeseed	370	95	465	167	483	118	551	198
Sesame	87	22	109	44	92	23	115	46
Copra	425	401	826	182	434	387	821	181
Palm Kernel	196	157	358	64	220	148	368	66
Linseed	346	492	838	302	350	410	760	274
Unspecified <sup>3</sup> /	185 <sup>4</sup> /	225	410	130	185 <sup>4</sup> /	267	452	144
<b>Total</b>	9,245	7,329	16,574	7,220	9,870	7,604	17,474	7,587
<b>Fish Meal</b>		2,857	2,857	1,857		3,409	3,409	2,216
<b>GRAND TOTAL</b>	9,245	10,186	19,431	9,077	9,870	11,013	20,883	9,803

TABLE 2 continued

WORLD NET EXPORTS OF OILSEED MEALS AND FISH MEAL  
(Thousands of Metric Tons)

	1969				1970			
	Seed <sup>1</sup> /	Meal	Total	Prot. <sup>2</sup> /	Seed <sup>1</sup> /	Meal	Total	Prot. <sup>2</sup> /
<u>Oilseed Meals</u>								
Soybean	7,398	3,321	10,719	4,931	9,955	4,228	14,183	6,524
Cottonseed	319	1,382	1,701	697	340	1,262	1,602	657
Groundnut	556	1,189	1,745	907	370	1,446	1,816	944
Sunflowerseed	193	530	723	311	165	587	752	323
Rapeseed	420	133	553	188	506	123	629	214
Sesame	109	42	151	60	101	31	132	53
Copra	375	419	794	175	317	492	809	178
Palm Kernel	231	177	408	73	241	176	417	75
Linseed	401	469	870	313	379	565	944	340
Unspecified <sup>3</sup> /	125 <sup>4</sup> /	360	485	167	160 <sup>4</sup> /	368	528	179
Total	10,127	8,022	18,149	7,822	12,534	9,278	21,812	9,487
Fish Meal		2,917	2,917	1,896		2,840	2,840	1,846
GRAND TOTAL	10,127	10,939	21,066	9,718	12,534	12,118	24,652	11,333

1/ Oilseed meal equivalents of oilseed net exports or net export availabilities, respectively.

2/ Average raw protein content of oilcake/expeller/meal.

3/ Except castor bean.

4/ Mainly safflowerseed.

SOURCE: Fats and Oils in Canada, Annual Review (Preliminary), 1970

TABLE 3

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## CANADA

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 metric tons)	Exports	Imports (1,000 metric tons)	Exports
OILSEEDS (1):				
Soybeans	431.6	86.0	423.5	24.5
Cottonseed				
Groundnut	47.2		49.2	
Sunflowerseed		7.4		2.0
Rapeseed		279.1		471.4
Copra				
Palm Kernel				
OILS (1):				
Soybean	12.3	14.5	16.5	18.4
Cottonseed	18.1		11.5	
Groundnut	9.3		8.6	
Sunflowerseed	5.0		10.7	
Rapeseed		****		
Coconut	18.7		21.6	
Palm Kernel	4.4		5.9	
Palm	7.3		14.3	
Olive (b)	1.3		2.2	
Fish		3.0	2.0	17.0
MEALS (2):				
Soybean	210.4	212.1	240.3	142.3 <sup>(3)</sup>
Cottonseed	2.9		1.1*	
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed		17.5		10.0
Oilseed NES	3.0	.1	1.2	****
Fish (1)		51.5	.6	72.8

(a)

Preliminary

(b)

Includes Residue Oil

\*

1969 figure only

\*\*\*\*

negligible

Source:

(1)

Oil World - November 1969-71

(2)

F.A.O. Trade Year Book, 1970

(3)

Statistics Canada

TABLE 4

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## UNITED STATES

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric Tons)	Exports (1,000 Metric Tons)	Imports (1,000 Metric Tons)	Exports (1,000 Metric Tons)
OILSEEDS (1):				
Soybeans		6474.0		10,154.1
Cottonseed		8.3		14.4
Groundnut		59.1		36.8
Sunflowerseed	5.1(2)		2.8	
Rapeseed	.4(2)		.4	
Copra	261.1(2)		234.9	
Palm Kernel				
OILS (1):				
Soybean		473.5		542.2
Cottonseed		168.4(2)		143.9
Groundnut		17.3(2)	.2	14.9
Sunflowerseed				
Rapeseed	2.7(2)		3.8(2)	
Coconut	207.0		229.7	4.5
Palm Kernel	43.7		42.0	
Palm	2.9		68.0	
Olive (b)	21.5		27.4	
Safflower		8.5		27.0
Fish	30.7	34.9	103.5	3.7
MEALS (2) (3):				
Soybean		1,135.7		3,328.1
Cottonseed	35.1	253.1	37.6 *	8.3
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed		101.6		76.3
Oilseed NES		15.9	3.3 *	47.8
Fish	328.0		306.8	

\*1969 figure only

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71

(2) Foreign Agriculture Circular - October 1971

(3) F.A.O. Trade Year Book, 1970

TABLE 5

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## EUROPEAN ECONOMIC COMMUNITY

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric Tons)	Exports	Imports	Exports
OILSEEDS (1)				
Soybeans	2660.9		4012.3	
Cottonseed	7.0		3.5	
Groundnut*	814.7	14.0	662.2	11.4
Sunflowerseed	127.2	3.3	276.7	24.4
Rapeseed	289.3	141.5(2)	360.4	251.4
Copra*	577.0	1.2	360.8	1.0
Palm Kernel	334.0		279.7	

\*Exports 1966 figures only

OILS (1):				
Soybean	35.2		135.9	177.4
Cottonseed	60.8		31.6	1.7
Groundnut	235.5	27.9	228.1	34.6
Sunflowerseed	104.2		292.6	85.3
Rapeseed	32.0	27.3	62.3	83.2
Coconut	82.0	41.3	106.5	56.1
Palm Kernel	34.4	25.1	66.0	37.6
Palm	275.0	15.9	317.8	27.2
Olive (b)	88.3		146.6	18.5
Fish (1)	269.1	21.4	311.9	17.4
MEALS (1):				
Soybean	1597.9	350.8	2744.2	691.7
Cottonseed	351.3	1.9	403.8	4.1
Groundnut	408.3	113.8	403.1	46.2
Sunflowerseed	262.6	15.0	321.5	20.1
Rapeseed	113.7	100.5	142.2	193.9
Copra	392.7	54.4	469.6	28.2
Palm Kernel	243.8	82.1	240.9	76.6
Linseed	620.5	78.5	559.6	35.2
Oilseeds NES	302.9	65.7	463.1	38.8
Fish	816.6	17.4	1019.3	57.0

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71

(2) Foreign Agriculture Circular - October 1971



TABLE 5 - 1

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## FRANCE

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric Tons)	Exports	Imports (1,000 Metric Tons)	Exports
<u>OILSEEDS (1):</u>				
Soybeans	113.1		249.3	
Cottonseed				
Groundnut	520.6		393.8	
Sunflowerseed	.4		1.3	23.1
Rapeseed	6.4	123.9*	44.5	211.6
Copra	96.1		58.8	
Palm Kernel	57.9		52.0	

\*1966 figure only

<u>OILS (1):</u>				
Soybean	2.1	3.5	28.2	14.8
Cottonseed				
Groundnut	155.3	13.4	138.7	18.1
Sunflowerseed	3.6	****	48.6	5.9
Rapeseed	1.7	41.5*	3.6	30.6
Coconut	7.2	1.5	20.1	3.0
Palm Kernel	6.7	.6	9.2	1.0
Palm	38.8	.6	38.1	.5
Olive <sup>(b)</sup>	26.8		19.6	2.9
Fish	25.8	2.3		

\*1966 figure only

<u>MEALS (1) (2):</u>				
Soybean	552.4	5.3	823.0	6.3
Cottonseed	39.9	.1	48.7	.9
Groundnut	199.7	25.0	202.6	22.1
Sunflowerseed	43.0	.3	59.9	.3
Rapeseed	4.1	45.0		82.5
Copra	3.8	3.3	3.6	2.3
Palm Kernel	8.5	7.0	10.3	1.6
Linseed	128.1	7.8	132.9	2.0
Oilseeds NES	39.3	17.0	1.9	10.6
Fish <sup>(1)</sup>	95.0	5.8	57.4	3.5

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71

(2) F.A.O. Trade Yearbook, 1970

TABLE 5 - 2

WORLD TRADE IN OILSEEDS, OILS AND MEALS  
----- By Country : 1965-66 and 1969-70 Averages -----

## WEST GERMANY

COMMODITY	<u>1965-66 Average</u>		<u>1969-70 Average (a)</u>	
	Imports (1,000 Metric Tons)	Exports	Imports (1,000 Metric Tons)	Exports
<u>OILSEEDS (1):</u>				
Soybeans	1,491.0		1,735.7	
Cottonseed	6.7		3.5	
Groundnut	65.6		92.8	3.0
Sunflowerseed	30.2		78.4	
Rapeseed	96.0		68.2	10.8
Copra	265.7		163.9	
Palm Kernel	124.9		72.6	
<u>OILS (1):</u>				
Soybean	10.0	17.7	37.9	55.9
Cottonseed	52.5		28.0	
Groundnut	56.7	4.3	54.6	9.1
Sunflowerseed	84.2	7.0	141.6	15.0
Rapeseed	15.0	25.2	5.7	26.5
Coconut	45.4	1.5	38.3	9.1
Palm Kernel	15.1	4.5	24.8	3.5
Palm	108.7	3.4	124.2	5.1
Olive <sub>(b)</sub>	4.0		3.2	****
Fish	74.7	15.5	159.6	8.1
<u>MEALS (1) (2):</u>				
Soybean	612.7	181.4	988.9	194.8
Cottonseed	200.8	1.1	259.1	2.6
Groundnut	144.8	9.4	130.7	7.0
Sunflowerseed	80.8	.2	121.7	4.2
Rapeseed	46.5	38.8	47.1	53.2
Copra	351.6	2.4	380.2	2.1
Palm Kernel	232.8	.6	229.2	.1
Linseed	262.6	5.6	216.2	10.8
Oilseeds NES	205.2	14.2	205.6	14.4
Fish <sub>(1)</sub>	403.0	1.5	542.7	18.1

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) Oil World - November 1969 - 71

(2) F.A.O. Trade Yearbook 1970

TABLE 5 - 3

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country: 1965-66 and 1969-70 Averages

## BELGIUM - LUXEMBOURG

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric Tons)	Exports (1,000 Metric Tons)	Imports (1,000 Metric Tons)	Exports (1,000 Metric Tons)
<u>OILSEEDS (1):</u>				
Soybeans	157.3		290.3	
Cottonseed				
Groundnut	55.1		17.5	
Sunflowerseed	2.4		1.6	
Rapeseed	3.3		2.4	.2
Copra	39.1		20.2	.2
Palm Kernel	27.7		6.0	
<u>OILS (1):</u>				
Soybean	3.0	6.8	17.2	24.5
Cottonseed	3.1		.2	
Groundnut	7.1	5.8	19.2	3.1
Sunflowerseed	10.1	.1	32.8	14.1
Rapeseed	1.4	****	6.1	.7
Coconut	9.3	2.8	15.4	5.7
Palm Kernel	1.4	1.7	6.2	.6
Palm	27.3	5.0	24.0	3.4
Olive <sub>(b)</sub>	.4		.6	.1
Fish	18.4	.6	17.6	1.0
<u>MEALS (1) (2):</u>				
Soybean	129.2	31.9	288.0	117.1
Cottonseed	48.5	****	57.2	.1
Groundnut	38.4	8.2	46.0	3.8
Sunflowerseed	41.3	****	50.2	****
Rapeseed	30.7	.3	39.2	.2
Copra	53.5	8.8	10.7	1.6
Palm Kernel	.3	10.0	1.1	3.3
Linseed	25.3	14.6	27.5	9.5
Oilseeds NES	63.9	2.5	148.8	1.3
Fish <sub>(1)</sub>	71.3	3.1	97.4	.7

(a) 1970 Preliminary

(b) Includes Residue Oil

\*\*\*\* negligible

Source:

(1) Oil World - November 1969-71

(2) F.A.O. Trade Yearbook, 1970

TABLE 5 - 4

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## NETHERLANDS

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric Tons)	Exports	Imports (1,000 Metric Tons)	Exports
<u>OILSEEDS (1):</u>				
Soybeans	409.6		1,010.8	
Cottonseed				
Groundnut	40.5		43.6	7.6
Sunflowerseed	1.1		8.6	
Rapeseed	12.0		22.3	10.9
Copra	151.8		100.7	.8
Palm Kernel	121.8		147.9	
<u>OILS (1):</u>				
Soybean	17.9	16.0	28.5	71.0
Cottonseed	4.2		3.4	
Groundnut	10.8	4.2	9.0	4.0
Sunflowerseed	12.2	.5	66.9	50.1
Rapeseed	12.8	2.0	14.5	7.7
Coconut	2.2	35.4	8.5	38.1
Palm Kernel	1.1	18.9	16.6	32.4
Palm	66.7	7.0	83.3	17.8
Olive <sub>(b)</sub>	.4		.4	****
Fish	70.4	2.9	126.7	4.6
<u>MEALS (1) (2):</u>				
Soybean	187.6	123.8	401.2	367.0
Cottonseed	62.1	.6	38.7	.6
Groundnut	2.3	2.6	21.7	3.2
Sunflowerseed	96.8	1.1	89.6	7.2
Rapeseed	36.4	1.5	47.7	2.0
Copra	26.4	45.3	74.3	20.5
Palm Kernel	****	64.4	.3	71.5
Linseed	165.1	50.4	139.6	12.2
Oilseeds NES	25.7		102.4	5.0
Fish <sub>(1)</sub>	154.4	6.9	165.0	39.6

(a) 1970 Preliminary

(b) Includes Residue Oil

\*\*\*\* negligible

Source:

(1) Oil World - November 1969-71

(2) F.A.O. Trade Yearbook, 1970

TABLE 5 - 5

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## ITALY

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric Tons)	Exports	Imports (1,000 Metric Tons)	Exports
<u>OILSEEDS (1):</u>				
Soybeans	489.8		726.0	
Cottonseed				
Groundnut	132.8		114.3	
Sunflowerseed	92.9		183.3	
Rapeseed	171.0		192.4	.1
Copra	22.3		17.0	
Palm Kernel	1.5		1.6	
<u>OILS (1):</u>				
Soybean	2.1	****	23.9	11.0
Cottonseed				
Groundnut	1.0	.1	6.4	.2
Sunflowerseed	1.7	.1	2.7	****
Rapeseed	1.0	****	24.7	1.1
Coconut	17.3	****	24.1	.1
Palm Kernel	10.1	.1	9.0	
Palm	32.5	****	48.1	.4
Olive <sub>(b)</sub>	56.6		122.9	15.4
Fish	4.3			
<u>MEALS (1) (2):</u>				
Soybean	117.9	8.4	242.9	6.3
Cottonseed				
Groundnut	1.7	11.6	2.0	9.9
Sunflowerseed	.6	13.4	.1	8.3
Rapeseed		60.0	.2	50.8
Copra	.3	1.9	.6	1.6
Palm Kernel				
Linseed	39.3	.1	43.2	.7
Oilseeds NES	2.8	33.9	4.2	7.4
Fish <sub>(1)</sub>	92.7	.1	114.2	

(a) 1970 Preliminary

(b) Includes Residue Oil

\*\*\*\* negligible

Source:

(1) Oil World - November 1969-71

(2) F.A.O. Yearbook, 1970



TABLE 6

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## UNITED KINGDOM

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric Tons)	Exports	Imports (1,000 Metric Tons)	Exports
OILSEEDS (1):				
Soybeans	286.0		345.2	
Cottonseed	77.0		11.9	
Groundnut	85.6		66.9	
Sunflowerseed				
Rapeseed	37.8		64.9	3.1
Copra	56.2		38.8	
Palm Kernel	188.2		41.0	
OILS (1):				
Soybean	19.4	.1	43.3	.5
Cottonseed	34.6		26.6	
Groundnut	86.4	2.6	90.5	2.2
Sunflowerseed	3.8		66.9	
Rapeseed	.2		13.4	
Coconut	39.3	2.0	45.7	1.8
Palm Kernel	8.4	2.6	31.7	
Palm	133.8		150.9	
Olive <sup>(b)</sup>	2.7		2.5	
Fish	155.1	5.0	188.1	8.1
MEALS (2):				
Soybean	231.9	.1	197.4	2.4
Cottonseed	232.9	****	202.1	.3
Groundnut	430.9	.1	365.9	.3
Sunflowerseed	90.7	****	84.6	.1
Rapeseed	71.6		82.1	.3
Copra				6.0
Palm Kernel				11.5
Linseed	18.4	.2	3.7	.1
Oilseed NES	33.6	.2	27.0	10.8
Fish (1)	334.9		418.0	

(a)

1970 Preliminary

(b)

Includes Residue Oil

\*\*\*\*

negligible

Source:

(1)

Oil World - November 1969-71

(2)

F.A.O. Trade Year Book, 1970

TABLE 7

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## OTHER WESTERN EUROPEAN COUNTRIES - TOTAL

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 metric tons)	Exports (1,000 metric tons)	Imports (1,000 metric tons)	Exports (1,000 metric tons)
OILSEEDS (1):				
Soybeans	489.2		1,166.6	
Cottonseed	29.0		74.7	
Groundnut	203.3		188.1	.2
Sunflowerseed	9.9		12.0	
Rapeseed	8.3		4.2	
Copra	30.0		41.7	
Palm Kernel	15.3		29.9	.5
OILS (1):				
Soybean	97.6	3.1	27.0	67.5
Cottonseed	8.3		1.7	
Groundnut	36.8	1.1	21.8	3.0
Sunflowerseed	61.4		75.6	
Rapeseed	15.0	.3	15.4	1.1
Coconut	28.4	5.1	13.6	2.0
Palm Kernel	4.0	2.0	7.4	3.0
Palm	23.2	1.1	15.4	1.9
Olive(b)	12.6	69.9	14.7	143.7
Fish	4.0	6.7	5.5	21.0
MEALS (1):				
Soybean	205.7*		274.4	71.5
Cottonseed	53.0*	3.9*	14.6	21.0
Groundnut	30.9*	13.6*	38.6	.5
Sunflowerseed	.3*		12.7	
Rapeseed	9.3*		8.6	
Copra	1.8*	.8*	2.4	.8
Palm Kernel		.3*		1.5
Linseed	31.4*	.6*	28.0	3.2
Oilseeds NES	16.1*	2.6*	39.6	3.1
Fish	215.7*	4.1*	162.9	137.0

\*Figures for Greece, Portugal and Switzerland, 1966 only

(a) 1970 Preliminary  
(b) Includes Residue Oil

Source:

(1) Table 7-1 to 7-7 inclusive

TABLE 7 - 1

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## AUSTRIA

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed	8.2		5.6	
Rapeseed				
Copra				
Palm Kernel				
OILS (1):				
Soybean	8.4		9.9	
Cottonseed	3.3		.3	
Groundnut	4.9		5.2	
Sunflowerseed	26.4		36.3	
Rapeseed	10.1		6.4	
Coconut	11.1		6.9	
Palm Kernel	2.2		.8	
Palm				
Olive <sup>(b)</sup>	.4		.3	
Fish	.9			
MEALS (1) (2):				
Soybean	49.2		81.1	
Cottonseed	16.9			
Groundnut			15.4	
Sunflowerseed	.3		.7	
Rapeseed	6.6		6.9	
Copra	1.8		1.3	
Palm Kernel				
Linseed	13.3		11.1	
Oilseeds NES	5.4		11.0	
Fish <sup>(1)</sup>	38.2		55.5	

(a)

1970 Preliminary

(b)

Includes Residue Oil

Source:

(1)

Oil World- November 1969-71

(2)

F.A.O. Trade Yearbook, 1970

TABLE 7-2

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## GREECE

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed	17.3		56.1	
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel	2.0		4.3	
OILS (1):				
Soybean	15.3		2.9	
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive <sup>(b)</sup>		12.5*		10.5
Fish				
*1966 figure only				
MEALS (1) (2):				
Soybean	19.0*		31.0	
Cottonseed	1.4*	2.5*	.9	21.0
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				1.5
Linseed		.6*		3.2
Oilseeds NES				.6
Fish <sup>(1)</sup>	17.1		10.8	

\*1966 figures only

(a) 1970 Preliminary  
(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71  
(2) F.A.O. Trade Yearbook, 1970

TABLE 7 - 3

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## IRELAND

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra	4.0		2.3	
Palm Kernel				
OILS (1):				
Soybean	.4			
Cottonseed	2.7		.5	
Groundnut	1.4		.9	
Sunflowerseed				
Rapeseed				
Coconut				
Palm Kernel*			3.7	
Palm	3.9			
Olive <sup>(b)</sup>				
Fish				
*includes palm kernel oil				
MEALS (1)(2):				
Soybean	50.7		77.2	
Cottonseed	16.0		11.1	
Groundnut			6.4	
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed	12.5		7.6	
Oilseed NES	4.8		16.6	
Fish(1)	12.5		24.8	

(a)

1970 Preliminary

(b)

Includes Residue Oil

Source:

(1)

Oil World - November 1969-71

(2)

F.A.O. Trade Yearbook, 1970



TABLE 7 - 4

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## SPAIN

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric Tons)	Exports	Imports (1,000 Metric Tons)	Exports
OILSEEDS (1):				
Soybeans	489.2			
Cottonseed				
Groundnut	24.9			
Sunflowerseed			4.5	
Rapeseed				
Copra			13.5	
Palm Kernel				
OILS (1):				
Soybean	62.9		6.1	67.5
Cottonseed				
Groundnut	15.5		4.4	
Sunflowerseed	15.5		5.2	
Rapeseed				
Coconut	11.5	3.7		
Palm Kernel				
Palm			5.9	
Olive (b)		50.6		133.0
Fish		3.9		8.7
MEALS (1) (2):				
Soybean				70.5
Cottonseed	1.2 (2)		2.5	
Groundnut			5.2	
Sunflowerseed			12.0	
Rapeseed			1.3	
Copra				
Palm Kernel				
Linseed			1.6	
Oilseeds NES	.6 (2)		4.9	
Fish (1)	96.1			129.3

(a) 1970 Preliminary  
(b) Includes Residue Oil

## Source:

(1) Oil World - November 1969-71  
(2) F.A.O. Trade Year Book, 1970

TABLE 7 - 5

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

-----By Country : 1965-66 and 1969-70 Averages-----

## SWITZERLAND

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 metric tons)	Exports	Imports (1,000 metric tons)	Exports
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut	73.9		63.9	
Sunflowerseed				
Rapeseed				
Copra	13.7		15.1	
Palm Kernel				
OILS (1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Coconut**	3.5		2.0	
Palm Kernel				
Palm				
Olive (b)	2.6		2.8	
Fish				
**includes palm kernel oil				
MEALS (1):				
Soybean	70.1*		65.6	
Cottonseed				
Groundnut	30.9*	.2*	8.6	.5
Sunflowerseed				
Rapeseed				
Copra		.5*		.8
Palm Kernel				
Linseed	5.6*		4.9	
Oilseeds NES	4.4*	2.5*	4.3	2.5
Fish	43.2		50.7	

\*1966 figures only

(a)

1970 Preliminary

(b)

Excludes Residue Oil

Source:

(1)

Oil World - November 1969-71

TABLE 7 - 6

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country: 1965-66 and 1969-70 Averages

## PORTUGAL

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 metric tons)	Exports	Imports (1,000 metric tons)	Exports
OILSEEDS (1):				
Soybeans			35.4	
Cottonseed	7.2		16.3	
Groundnut	97.4		82.6	
Sunflowerseed				
Rapeseed				
Copra	12.3		10.8	
Palm Kernel	2.0		10.8	
OILS (1):				
Soybean				
Cottonseed				
Groundnut	6.9	.4	5.9	
Sunflowerseed				
Rapeseed				
Coconut				
Palm Kernel				
Palm	15.0		3.7*	
Olive(b)	8.9	6.8	11.1	
Fish		2.2	****	10.5

\*includes palm kernel oil

MEALS (1):				
Soybean	16.7**		19.5	1.0
Cottonseed		1.2**	.1	
Groundnut		13.4**	3.0	
Sunflowerseed				
Rapeseed	2.7**		.4	
Copra		.3**	1.1	
Palm Kernel		.3**		
Linseed			2.8	
Oilseeds NES	.5**	.1**	2.8	
Fish <sub>(1)</sub>	8.6	4.1	21.1	7.7

\*\*1966 figures only

(a) 1970 Preliminary  
 (b) Includes Residue Oil  
 \*\*\*\* negligible

Source:

(1)

Oil World - November 1969-71

TABLE 7-7

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

OTHER WESTERN EUROPE - commodities not allocated to the specific countries of this region

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric tons)	Exports	Imports (1,000 Metric tons)	Exports
OILSEEDS (1):				
Soybeans	2.0		3.1	
Cottonseed	4.5		2.3	
Groundnut	7.1		6.7	.2
Sunflowerseed	1.7		1.9	
Rapeseed	8.3		4.2	
Copra				
Palm Kernel	11.3		14.8	.5
OILS (1):				
Soybean	10.6	3.1	8.1	
Cottonseed	2.3		.9	
Groundnut	8.1	.7	5.4	3.0
Sunflowerseed	19.5		34.1*	
Rapeseed	4.9	.3	9.0	1.1
Coconut	2.3	1.4	2.1	2.0
Palm Kernel	1.8	2.0	2.9	3.0
Palm	4.3	1.1	5.8	1.9
Olive <sub>(b)</sub>	.7		.5	.2
Fish	3.1	.6	5.5	1.8
*includes some pumpkin seed				
MEALS (1):				
Soybean				
Cottonseed**	17.5 <sub>(2)</sub>	.2 <sub>(2)</sub>		
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES**	.4 <sub>(2)</sub>			
Fish				
**Refers to Malta				

(a) 1970 Preliminary  
(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71  
(2) F.A.O. Trade Yearbook, 1970

TABLE 8  
WORLD TRADE IN OILSEEDS, OILS AND MEALS  
-----By Country : 1965-66 and 1969-70 Averages-----

SCANDINAVIAN COUNTRIES - TOTAL

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 metric tons)	Exports	Imports (1,000 metric tons)	Exports
OILSEEDS (1):				
Soybeans	550.9		702.7	
Cottonseed				
Groundnut	10.1		5.3	
Sunflowerseed			38.4	
Rapeseed	5.7	80.5	6.8	92.6
Copra	141.4		89.3	
Palm Kernel	16.4		20.1	
OILS (1):				
Soybean	13.0	43.0	34.6	51.1
Cottonseed	6.8		4.5	
Groundnut	3.7		3.1	
Sunflowerseed	2.5		11.0	
Rapeseed		15.5	2.9	18.5
Coconut	3.3	.8	2.9	
Palm Kernel	1.3	.6	.7	
Palm (b)	2.2		8.2	
Olive	1.0		1.1	
Fish	96.0	335.1	45.8	264.8
MEALS (1):				
Soybean	430.1	113.8	377.8	164.8
Cottonseed	571.5	15.0	500.7	3.0
Groundnut	198.1	1.7	95.0	.1
Sunflowerseed	155.0	.1	106.2	.4
Rapeseed	15.9	.9	50.1	1.0
Copra	54.2	58.6	49.5	10.5
Palm Kernel	1.1	7.7	3.1	10.7
Linseed	40.3	1.0	22.3	1.2
Oilseeds NES	28.2	6.2	26.8	7.9
Fish	89.3	484.8	140.8	505.6

(a) 1970 Preliminary  
(b) Includes Residue Oil

Source:  
(1) Tables 8-1 to 8-5 inclusive



TABLE 8 - 1

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## DENMARK

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 metric tons)	Exports (1,000 metric tons)	Imports (1,000 metric tons)	Exports (1,000 metric tons)
<u>OILSEEDS (1):</u>				
Soybeans	354.9		475.8	
Groundnuts	2.7		1.1	
Rapeseed		35.0	.2	14.4
Copra	33.5		22.5	
Palm Kernel	16.4		20.1	
<u>OILS (1):</u>				
Soybean	.9	37.2		50.7
Cottonseed	.3			
Groundnut		****		
Sunflowerseed	2.4 <sup>(2)</sup>			
Rapeseed		.3	.8	
Coconut	.2 <sup>(2)</sup>	.4 <sup>(2)</sup>	****	
Palm Kernel		.6 <sup>(2)</sup>		
Palm	1.0		4.1	
Olive <sup>(b)</sup>	.1 <sup>(2)</sup>			
Fish	36.4	6.8	16.1	29.0
<u>MEALS (1)(2):</u>				
Soybean	244.9	109.9	223.7	102.9
Cottonseed	393.5	15.0	346.5	3.0
Groundnut	91.1	1.7	6.4	.1
Sunflowerseed	71.3	.1	103.9	.4
Rapeseed	9.9	.9	8.5	.9
Copra	16.6	58.0	29.7	9.2
Palm Kernel	1.0	7.7	.1	10.7
Linseed	28.0	.6	22.3	.5
Oilseed Meal NES	3.9	6.2		
Fish	21.4	67.6	24.8	166.1

(a) 1970 Preliminary  
(b) Includes Residue Oil

\*\*\*\* negligible  
(1) Oil World - November 1969-71  
(2) F.A.O. Trade Yearbook, 1970

TABLE 8 - 2

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

-----By Country : 1965-66 and 1969-70 Averages-----

## FINLAND

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans	54.7		44.3	
Cottonseed				
Groundnut				
Sunflowerseed			38.4	
Rapeseed	5.7		6.4	
Copra	10.5		8.1	
Palm Kernel				
OILS (1):				
Soybeans		5.8		.4
Cottonseed				
Groundnut				
Sunflowerseed			9.7	
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive <sup>(b)</sup>				
Fish				
MEALS (1) (2):				
Soybean	7.0			13.3
Cottonseed	21.1		.1	
Groundnut				
Sunflowerseed	16.6		.4	
Rapeseed				
Copra				
Palm Kernel				
Linseed	.6			
Oilseeds NES				
Fish	20.1		37.9	

(a) 1970 Preliminary

(b) Includes Residue Oil

## Source:

(1) Oil World - November 1969-71

(2) F.A.O. Trade Year Book, 1970

TABLE 8 - 3

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

----- By Country : 1965-66 and 1969-70 Averages -----

## ICELAND

COMMODITY	<u>1965-66 Average</u>		<u>1969-70 Average (a)</u>	
	Imports	Exports	Imports	Exports
	(1,000 Metric Tons)		(1,000 Metric Tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
OILS (2):				
Soybean	.4		.6	
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Coconut	.5		.3*	
Palm Kernel				
Palm				
Olive (b)				
Fish (1)		113.4		27.8
	*1969 figure only			
MEALS (1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Fish (c)		160.3		64.4

(a) 1970 Preliminary  
 (b) Includes Residue Oil  
 (c) 1965-66 net export figure  
 Source:  
 (1) Oil World - November 1969-71

TABLE 8-4

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## NORWAY

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric tons)	Exports (1,000 Metric tons)	Imports (1,000 Metric tons)	Exports (1,000 Metric tons)
OILSEEDS (1):				
Soybeans	138.6		180.2	
Cottonseed				
Groundnut	7.4		4.2	
Sunflowerseed				
Rapeseed			.1	
Copra	26.7		20.8	
Palm Kernel				
OILS (1):				
Soybean	.7		4.1	
Cottonseed				
Groundnut	.2			
Sunflowerseed				
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive <sup>(b)</sup>	.9		1.1	
Fish	59.5	171.5	29.7	208.0
MEALS (1)(2):				
Soybean	1.6	3.9		48.6
Cottonseed	44.7		59.6	
Groundnut	47.2		46.4	
Sunflowerseed	57.5			
Rapeseed			41.6	
Copra	2.6			1.0
Palm Kernel				
Linseed	11.7	.4		.7
Oilseeds NES	23.7		23.7	
Fish (net) <sup>(1)(c)</sup>		256.5	.9	275.1

(a) 1970 Preliminary  
(b) Includes Residue Oil  
(c) 1965-66 net export figure

Source:

(1) Oil World - November 1969-71  
(2) F.A.O. Trade Yearbook, 1970

TABLE 8 - 5

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## SWEDEN

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric Tons)	Exports	Imports (1,000 Metric Tons)	Exports
OILSEEDS (1):				
Soybeans	2.7		2.4	
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed		45.5	.1	78.2
Copra	70.7		37.9	
Palm Kernel				
OILS (1):				
Soybean	11.0		29.9	
Cottonseed	6.5		4.5	
Groundnut	3.5		3.1	
Sunflowerseed	.1		11.0	
Rapeseed		15.2	2.1	18.5
Coconut	2.1	.4	2.6	.4
Palm Kernel	1.3		.7	
Palm	2.2		4.1	
Olive <sub>(b)</sub>				
Fish	.1	43.4		
MEALS (2):				
Soybean	176.6		154.1	
Cottonseed	112.2		94.5	
Groundnut	59.8		42.2	
Sunflowerseed	9.6		1.9	
Rapeseed	6.0			.1
Copra	35.0	.6	19.8	.3
Palm Kernel	.1		3.0	
Linseed	3.1		1.1	
Oilseed Meal NES	.6		.6	
Fish <sub>(1)</sub>	47.8	.4	77.2	

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71

(2) F.A.O. Trade Yearbook, 1970



## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## JAPAN

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans	2,008.0		2,917.2	
Cottonseed	241.5		270.6	
Groundnut	31.5		51.5	
Sunflowerseed	3.6		67.9	
Rapeseed	156.4		316.1	
Copra	102.4		117.9	
Palm Kernel	23.1		33.6	
OILS (1):				
Soybean		5.3		8.3
Cottonseed	3.3		2.7	
Groundnut		.4	.1	.2(2)
Sunflowerseed				
Rapeseed		7.2		11.5
Coconut	****		.8(2)	.5
Palm Kernel	.7(2)	2.9(2)		4.1
Palm	18.3		41.1	.4(2)
Olive (b)	.5		.8	
Fish	.5	75.6	5.2	33.9
MEALS (1) (2):				
Soybean	26.9	1.6	26.6*	3.4 *
Cottonseed	6.7		19.8*	
Groundnut	53.4		82.1*	
Sunflowerseed				
Rapeseed				
Copra	18.3	.5		
Palm Kernel			.6*	3.0*
Linseed	1.5		.8*	****
Oilseed NES	62.8	.7	109.7*	.1*
Fish (1)	104.1	14.5	101.4	21.4

\*1969 value only

(a) 1970 Preliminary

(b) Includes Residue Oil

\*\*\*\* negligible

Source:

(1) Oil World - November 1969-71

(2) F.A.O. Trade Yearbook, 1970

TABLE 10

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## AUSTRALIA

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 Metric Tons)		(1,000 Metric Tons)	
<u>OILSEEDS (1):</u>				
Soybeans				
Cottonseed				
Groundnut			6.7	(3)
Sunflowerseed	33.0		56.0	
Rapeseed				
Copra	33.7		29.3	
Palm Kernel				
<u>OILS (1):</u>				
Soybean	4.3	(2)	5.3	(2) *
Cottonseed	1.9	(2)	****	*
Groundnut	9.8		5.1	
Sunflowerseed	.1	(2)	1.9	(2)
Rapeseed	4.7	(2)	5.1	
Coconut				
Palm Kernel	1.0	(2)	1.0	
Palm	2.7	(2)	3.7	(2)
Olive <sub>(b)</sub>	4.5	(2)	5.3	
Fish		5.2		
*1969 figures only				
<u>MEALS (2):</u>				
Soybean	17.9		21.0	
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseed Meal NES	1.0		.4	
Fish <sub>(1)</sub>				

(a)

1970 Preliminary

(b)

Includes Residue Oil

\*\*\*\*

negligible

Source:

(1)

Oil World - November 1969-71

(2)

F.A.O. Trade Yearbook, 1970

TABLE 11  
WORLD TRADE IN OILSEEDS, OILS AND MEALS  
----- By Country : 1965-66 and 1969-70 Averages -----

SOUTH AFRICA

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric Tons)	Exports	Imports	Exports
<u>OILSEEDS (1):</u>				
Soybeans				
Cottonseed				
Groundnut		18.0(2)		62.9
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
<u>OILS (1):</u>				
Soybean	2.5(2)		2.4(2)*	
Cottonseed				
Groundnut		5.7(2)		12.3
Sunflowerseed	2.2(2)	.7(2)	2.0(2)*	.1(2)*
Rapeseed			.2(2)	
Coconut	8.1		8.9	
Palm Kernel	2.3		2.5	
Palm				
Olive(b)				
Fish(c)		44.7		58.6
*1969 figures only				
<u>MEALS (1):</u>				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish(c) (net)				

(a) 1970 Preliminary  
(b) Includes residue oil.  
(c) Includes South West Africa. Export figures are net.  
Source:  
(1) Oil World - November 1969-71  
(2) F.A.O. Trade Yearbook, 1970

TABLE 12

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## EASTERN EUROPE - TOTAL

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans	97.5		125.2	
Cottonseed	23.6		14.0	
Groundnut	78.9		14.9	
Sunflowerseed	54.2	170.9	182.8	261.8
Rapeseed	35.7	82.2	16.0	81.7
Copra				
Palm Kernel	14.7		15.9	
OILS (1):				
Soybean	27.2		9.1	
Cottonseed			8.8	
Groundnut				
Sunflowerseed	146.7	63.8	167.6	219.8
Rapeseed		14.5		36.3
Coconut	9.0		4.7	
Palm Kernel				
Palm (b)			2.7	
Olive	1.8		1.3	
Fish			18.7	
MEALS (2):				
Soybean	74.2		173.8*	
Cottonseed	69.5	27.6	4.9*	
Groundnut	224.5		92.3*	
Sunflowerseed	22.1		23.5	
Rapeseed	2.7			
Copra				
Palm Kernel				
Linseed	5.5		9.6*	
Oilseeds NES	28.6			
Fish	288.3		491.9*	

\*1969 figures only for vegetable meals - includes only  
Hungary and Bulgaria

(a) 1970 Preliminary  
(b) Includes Residue Oil

Source:  
Tables 12-1 to 12-7 inclusive

TABLE 12-1

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## BULGARIA

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 metric tons)	Exports	Imports	Exports
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed		110.6 (2)		106.6
Rapeseed				
Copra				
Palm Kernel				
OILS (1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed	15.0	.5 (2)	10.7	50.1
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive (b)				
Fish				
MEALS (2) (3):				
Soybean	13.5		39.2 *	
Cottonseed	4.5		4.9 *	
Groundnut	15.4		26.3 *	
Sunflowerseed	9.5		10.1 *	
Rapeseed				
Copra				
Palm Kernel				
Linseed			.2 *	
Oilseeds NES	28.4			
Fish (1)	.6			

\*1969 figures only

(a) 1970 Preliminary  
(b) Includes Residue Oil

## Source:

- (1) Oil World - November 1969-71  
(2) Foreign Agriculture Circular - October 1971  
(3) F.A.O. Trade Year Book - 1970



TABLE 12-2

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

----- By Country : 1965-66 and 1969-70 Averages -----

## CZECHOSLOVAKIA

COMMODITY	1965-66 Average		1969-70 Average(a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans	25.9		26.0	
Cottonseed	23.6		14.0	
Groundnut	46.1		10.0	
Sunflowerseed	54.2		64.0	
Rapeseed	25.3		16.0	
Copra				
Palm Kernel				
OILS (1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed	30.1		35.0	
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive (b)				
Fish				
MEALS (2):				
Soybean	16.0			
Cottonseed	65.0	27.6		
Groundnut	101.8			
Sunflowerseed	1.2			
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish <sub>(1)</sub>	69.9		93.0	

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71

(2) F.A.O. Trade Year Book, 1970

TABLE 12-3

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

-----By Country : 1965-66 and 1969-70 Averages-----

## EAST GERMANY

COMMODITY	1965-66 Average		1969-70 Average(a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed			78.5	
Rapeseed		9.4(2)		15.0
Copra				
Palm Kernel				
OILS (1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed	72.7		82.2	
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive (b)				
Fish				
MEALS (1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish	69.9		130.0	

(a)

1970 Preliminary

(b)

Includes Residue Oil

Source:

(1)

Oil World - November 1969-71

(2)

Foreign Agriculture Circular - October 1971

TABLE 12 - 4

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## HUNGARY

COMMODITY	1965-66 Average		1969-70 Average(a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans	26.9		10.1	
Cottonseed				
Groundnut	4.0		2.2	
Sunflowerseed		12.1(2)	35.9	30.0
Rapeseed				
Copra				
Palm Kernel				
OILS (1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed	10.8	9.1(2)	10.8	31.2
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive (b)				
Fish				
MEALS (3):				
Soybean	44.7		134.6*	
Cottonseed				
Groundnut	107.3		66.0*	
Sunflowerseed	11.4		13.4*	
Rapeseed	2.7			
Copra				
Palm Kernel				
Linseed	5.5		9.4*	
Oilseeds NES	.2			
Fish <sub>(1)</sub>	31.3			

\*1969 figures only

(a)	1970 Preliminary
(b)	Includes Residue Oil

## Source:

- (1) Oil World - November 1969-71
- (2) Foreign Agriculture Circular - October 1971
- (3) F.A.O. Trade Yearbook, 1970

TABLE 12-5

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## POLAND

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric Tons)	Exports	Imports (1,000 Metric Tons)	Exports
OILSEEDS (1):				
Soybeans	44.7		89.1	
Cottonseed				
Groundnut	28.8		2.7	
Sunflowerseed			4.4	
Rapeseed	10.4	72.8		65.0
Copra				
Palm Kernel	14.7		15.9	
OILS (1):				
Soybean	8.4			
Cottonseed			8.8	
Groundnut				
Sunflowerseed	16.4		20.1	
Rapeseed		14.5 <sup>(2)</sup>		36.3
Coconut	9.0		4.7	
Palm Kernel				
Palm			2.7	
Olive (b)	1.3		.5	
Fish			18.7	
MEALS (1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish <sup>(1)</sup>	65.1		124.7	3.4

(a) 1970 Preliminary

(b) Includes Residue Oil.

Source:

(1) Oil World - November 1969-71

(2) Foreign Agriculture Circular - October 1971

TABLE 12-6

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## RUMANIA

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 Metric Tons)		(1,000 Metric Tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed		43.0		60.0
Rapeseed				
Copra				
Palm Kernel				
OILS(1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed	.9	54.2	5.4	136.8
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive <sup>(b)</sup>				
Fish				
MEALS (2):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish				

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71

(2) F.A.O. - Trade Yearbook, 1970



TABLE 12-7

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## YUGOSLAVIA

COMMODITY	1965-66 Average		1969-70 Average(a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed		5.2		65.2
Rapeseed				1.7
Copra				
Palm Kernel				
OILS (1):				
Soybean	18.8		9.1	
Cottonseed				
Groundnut				
Sunflowerseed	.8	****	3.4(2)	1.7(2)
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive(b)	.5		.8	
Fish				
MEALS (1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish(1)	14.9		87.2	

(a) 1970 Preliminary

(b) Includes Residue Oil.

\*\*\*\* negligible

Source:

(1) Oil World - November 1969-71

(2) Foreign Agriculture Circular - October 1971

TABLE 13

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

U. S. S. R.

COMMODITY	1965-66 Average		1969-70 Average(a)	
	Imports	Exports	Imports	Exports
	(1,000 Metric Tons)		(1,000 Metric Tons)	
OILSEEDS (1):				
Soybeans	46.7			
Cottonseed				37.4
Groundnut	23.9		27.9	
Sunflowerseed	25.1*	112.9		244.0
Rapeseed				
Copra	6.5		2.5	
Palm Kernel	6.1		2.6	
*1966 figure only				
OILS (1):				
Soybean				
Cottonseed		30.2	2.0	30.6
Groundnut				
Sunflowerseed		324.3(2)		503.6
Rapeseed				
Coconut	13.6		19.0	
Palm Kernel				
Palm				
Olive (b)	7.2		7.7	
Fish				
MEALS (1):				
Soybean		12.5		3.0
Cottonseed		116.2	10.5	116.0
Groundnut				
Sunflowerseed		106.0		90.0
Rapeseed				
Copra				
Palm Kernel				
Linseed		3.0		
Oilseeds NES		2.3		
Fish (Net)(1) (c)		9.4		19.3

(a) 1970 Preliminary  
(b) Includes Residue Oil  
(c) 1965-66 net export figure

Source:

(1) Oil World - November 1969-71  
(2) Foreign Agriculture Circular - October 1971

TABLE 14

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## MAINLAND CHINA

COMMODITY	1965-66 Average		1969-70 Average	
	Imports	Exports	Imports	Exports
	(1,000 Metric tons)		(1,000 Metric Tons)	
<u>OILSEEDS (1) (3):</u>				
Soybeans		565.0		480.0
Cottonseed				
Groundnut		55.0		32.0
Sunflowerseed				
Rapeseed		16.9		4.0
Copra				
Palm Kernel				
 <u>OILS (2):</u>				
Soybean		3.5		2.5 <sup>(1)</sup>
Cottonseed		35.6		8.0
Groundnut		15.5		12.0
Sunflowerseed				
Rapeseed		19.4		16.5
Coconut				
Palm Kernel				
Palm				
Olive <sup>(b)</sup>				
Fish				
 <u>MEALS:</u>				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish				

(a) 1970 Preliminary

(b) Includes Residue Oil.

Source:

(1) Foreign Agriculture Circular

(2) F.A.O. Trade Yearbook, 1970

(3) Oil World - November 1969-71

TABLE 15

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## CENTRAL AMERICA &amp; MEXICO - TOTAL

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans	6.3		77.8	
Cottonseed		160.3(2)	13.7	26.9
Groundnut	****	6.6(2)	8.0	2.2
Sunflowerseed				
Rapeseed			6.4	
Copra		3.6*	10.5	
Palm Kernel				
*1966 figure only				
OILS (1):				
Soybean			9.2	
Cottonseed	13.0	7.8(2)	13.2	13.5
Groundnut	8.4		4.5	
Sunflowerseed	44.6		58.9	
Rapeseed				
Coconut		2.1*		
Palm Kernel				
Palm				
Olive (b)				
Fish				
*1966 figure only				
MEALS (1):				
Soybean				
Cottonseed		148.1		121.0
Groundnut		13.7		15.2
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES		.9		2.0
Fish	40.7			82.4

(a) 1970 Preliminary

(b) Includes Residue Oil

\*\*\*\*negligible

Source:

(1) Oil World - November 1969-71

(2) Foreign Agriculture Circular - October, 1971

TABLE 16  
WORLD TRADE IN OILSEEDS, OILS AND MEALS  
----- By Country : 1965-66 and 1969-70 Averages -----

SOUTH AMERICA - TOTAL

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric Tons)	Exports	Imports (1,000 Metric Tons)	Exports
<u>OILSEEDS (1):</u>				
Soybeans	30.9	98.1	51.9	299.9
Cottonseed				
Groundnut		99.3		42.2
Sunflowerseed		56.8		
Rapeseed				
Copra	56.2		1.3	
Palm Kernel				
<u>OILS (1):</u>				
Soybean	50.2		68.2	.4
Cottonseed	18.4			2.0
Groundnut	3.5	70.6	5.3	53.9
Sunflowerseed	20.7	58.0	31.1	54.3
Rapeseed				
Coconut	.5	1.0	.3	
Palm Kernel		3.7		5.6
Palm	1.9	2.6		4.0
Olive <sup>(b)</sup>	10.3	6.3	11.7	9.0
Fish	23.3	165.3	29.0	146.9
(b) Includes Residue Oil				
<u>MEALS (1):</u>				
Soybean	.4	147.6		410.9
Cottonseed		101.8		268.8
Groundnut		184.3		223.8
Sunflowerseed		342.6		364.8
Rapeseed		2.2		
Copra				
Palm Kernel		39.0		51.3
Linseed		471.2		373.8
Oilseeds NES		18.3		72.2
Fish	14.9	1,407.5	26.7	1,912.5

(a) 1970 Preliminary

Source:

(1) Tables 16-1 to Table 16-9 inclusive



TABLE 16-1

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

-----By Country : 1965-66 and 1969-70 Averages-----

## ARGENTINA

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 Metric tons)		(1,000 Metric Tons)	
<u>OILSEEDS (1):</u>				
Soybeans				
Cottonseed				
Groundnuts		79.2*		
Sunflowerseed		56.8		
Rapeseed				
Copra				
Palm Kernel				
	*1966 figure only			
<u>OILS (1):</u>				
Soybean	6.1			.4
Cottonseed		1.3		1.5
Groundnut		70.6		40.8
Sunflowerseed		56.8		54.3
Rapeseed				
Coconut		1.0 <sub>(2)</sub>		
Palm Kernel				
Palm				
Olive <sub>(b)</sub>		6.3 <sub>(2)</sub>		9.0
Fish				
<u>MEALS (1):</u>				
Soybean				
Cottonseed		81.3		83.9
Groundnut		156.2		55.3
Sunflowerseed		323.8		347.5
Rapeseed		2.2		
Copra				
Palm Kernel				
Linseed		434.7		318.4
Oilseed Meal NES		1.0		
Fish				

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71

(2) Foreign Agriculture Circular - October 1971

TABLE 16-2

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## BRAZIL

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric Tons)	Exports (1,000 Metric Tons)	Imports (1,000 Metric Tons)	Exports (1,000 Metric Tons)
<u>OILSEEDS (1):</u>				
Soybeans		98.1		299.9
Cottonseed				
Groundnut		20.1		42.2
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Babassu				
<u>OILS (1):</u>				
Soybean	13.7		3.9	
Cottonseed	4.5	****		.5
Groundnut				13.1
Sunflowerseed	.1		11.6	
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive <sup>(b)</sup>	9.2		10.9	
Babassu				14.8
Fish				
<u>MEALS (1):</u>				
Soybean		145.0		410.4
Cottonseed		13.5		166.7
Groundnut		138.2		168.3
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
(mainly babassu)		36.8		49.0
Linseed		7.1		9.0
Unspecified		6.6		50.0
Fish				

(a) 1970 Preliminary

(b) Includes Residue Oil

\*\*\*\* negligible

Source:

(1) Oil World - November 1969-71

TABLE 16-3

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

-----By Country : 1965-66 and 1969-70 Averages-----

## CHILE

COMMODITY	1965-66 Average		1969-70 Average(a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
OILS (1):				
Soybeans	4.2		24.5	
Cottonseed				
Groundnut				
Sunflowerseed	.1		3.7	
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive <sup>(b)</sup>				
Fish		16.9		14.9
MEALS (1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish <sup>(c)</sup>		125.2		122.4

(a) 1970 Preliminary  
(b) Includes Residue Oil  
(c) 1965-66 net export figure

Source:

(1) Oil World - November 1969-71

TABLE 16-4

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## COLUMBIA

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra	8.2		.7	
Palm Kernel				
OILS (1):				
Soybean	11.2		6.0	
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive (b)				
Fish	23.3		29.0	
MEALS (1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish				

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71

TABLE 16 - 5

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## ECUADOR

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
<u>OILSEEDS (1):</u>				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
<u>OILS (1):</u>				
Soybean	6.6		10.6	
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Coconut	.1			
Palm Kernel				
Palm				
Olive(b)	.2			
Fish				
<u>MEALS (1):</u>				
Soybean				
Cottonseed		2.3		
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES		1.4		
Fish				

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) F.A.O. Trade Yearbook, 1970



TABLE 16-6

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## PARAGUAY

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
OILS (1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Coconut				
Palm Kernel		3.7		5.6 <sup>(2)</sup>
Palm		2.6		4.0 <sup>(3)</sup>
Olive				
Fish				
MEALS (1):				
Soybean		2.4		.5*
Cottonseed		4.7		7.2*
Groundnut		1.5		.2*
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel		2.2		2.3*
Linseed				
Oilseeds NES		9.2		22.2*

Fish

\*1969 figures only

(a) 1970 Preliminary

Source:

(1) F.A.O. Trade Yearbook, 1970

(2) Oil World - November 1969-71

(3) Foreign Agriculture Circular - October, 1971

TABLE 16-7

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

-----By Country : 1965-66 and 1969-70 Averages-----

## PERU

COMMODITY	<u>1965-66 Average</u>		<u>1969-70 Average(a)</u>	
	Imports	Exports	Imports	Exports
	(1,000 Metric tons)		(1,000 Metric tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
OILS (1):				
Soybean	8.7		23.2	
Cottonseed				
Groundnut				
Sunflowerseed	20.5		15.8	
Rapeseed				
Coconut				
Palm Kernel				
Palm	1.9			
Olive <sup>(b)</sup>	.3			
Fish		148.4		132.0
MEALS (1):				
Soybean				
Cottonseed				11.0
Groundnut		26.6		
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Fish (net) <sup>(c)</sup>		1,282.3		1,790.1

(a) 1970 Preliminary  
 (b) Includes Residue Oil  
 (c) 1965-66 net export figure  
 Source:  
 (1) Oil World - November 1969-71

TABLE 16 - 8

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## URUGUAY

COMMODITY	<u>1965-66 Average</u>		<u>1969-70 Average (a)</u>	
	Imports	Exports	Imports	Exports
	(1,000 Metric Tons)		(1,000 Metric Tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
OILS (1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed		1.2		
Rapeseed				
Coconut	.4		.3*	
Palm Kernel				
Palm				
Olive(b)				
Fish				
*1969 figure only				
MEALS (2):				
Soybean		.2		
Cottonseed				
Groundnut				
Sunflowerseed		18.8		17.3
Rapeseed				
Copra				
Palm Kernel				
Linseed		29.4		46.4
Oilseeds NES		.1		
Fish				

(a) 1970 Preliminary  
(b) Includes Residue Oil

## Source:

(1) F.A.O. Trade Yearbook, 1970  
(2) Oil World - November 1969-71

TABLE 16-9

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

-----By Country : 1965-66 and 1969-70 Averages-----

## VENEZUELA

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 metric tons)	Exports	Imports (1,000 metric tons)	Exports
OILSEEDS (1):				
Soybeans	30.9		51.9	
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra	48.0		1.8	
Palm Kernel				
OILS (1):				
Soybean				
Cottonseed	13.9		26.9	
Groundnut	3.5		3.1	
Sunflowerseed				
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive <sub>(b)</sub>	.6		.8	
Fish				
MEALS (1) (2):				
Soybean	.4			
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish <sub>(1)</sub>	14.9		26.7	

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71

(2) F.A.O. Trade Yearbook, 1970

TABLE 17

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## EAST AND WEST AFRICA

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed	4.0	110.1(2)		205.5
Groundnut		1,255.1(2)	9.4	752.4
Sunflowerseed		7.5(2)		10.0
Rapeseed		1.3(2)		.4(2)
Copra		59.4(2)		76.4
Palm Kernel		587.8(2)		364.5
OILS(1):				
Soybean				
Cottonseed		10.3*	2.9	4.9
Groundnut		274.8(2)	3.3	258.5
Sunflowerseed				
Rapeseed				
Coconut		8.3(2)		15.3
Palm Kernel		64.4		106.1
Palm		265.9	.6	179.1
Olive (b)	10.1		6.5	
Fish		5.0		10.1
	*1966 figure only			
MEALS (1):				
Soybean				
Cottonseed		141.6		158.7
Groundnut		363.7		400.6
Sunflowerseed				
Rapeseed		4.5		3.3
Copra		9.0		10.7
Palm Kernel		67.2		160.0
Linseed		7.5		7.1
Oilseeds NES		33.4		16.4
Fish (net) (c)		51.1		77.3

- (a) Preliminary  
 (b) Includes Residue Oil  
 (c) 1965-66 net export figure

Source:

- (1) Oil World - November 1969-71  
 (2) Foreign Agriculture Circular - October 1971



TABLE 18

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

-----By Country : 1965-66 and 1969-70 Averages-----

## NORTH AFRICA - TOTAL

COMMODITY	1965-66 Average		1969-70 Average	
	Imports	Exports	Imports	Exports
	(1,000 Metric Tons)		(1,000 Metric Tons)	
<u>OILSEEDS (1):</u>				
Soybeans	4.7		1.0	
Cottonseed		58.6		42.5
Groundnut	3.3	133.2	4.8	85.1
Sunflowerseed			.1	
Rapeseed	57.5		61.2	
Copra				
Palm Kernel				
<u>OILS (1):</u>				
Soybean	70.0		68.1	
Cottonseed	1.0	9.7	30.3	11.2
Groundnut		.8		
Sunflowerseed	33.1		57.0	
Rapeseed	2.6		3.5	
Coconut				
Palm Kernel				
Palm				
Olive(b)	2.8	57.7	7.5	57.0
Fish		4.6		6.6
<u>MEALS (1):</u>				
Soybean	1.4	.5	2.6	
Cottonseed		141.8		161.3
Groundnut	.8	20.4	.6	31.9
Sunflowerseed	.3			
Rapeseed		26.9		41.3
Copra		.1		
Palm Kernel				
Linseed		8.5		11.3
Oilseeds NES	.7	29.9	1.6	45.9
Fish (net)(c)		29.0		25.4

(a) 1970 Preliminary

(b) Includes Residue Oil

(c) 1965-66 net export figures

Source:

(1) Tables 18-1 to 18-6 inclusive

TABLE 18 - 1

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country: 1965-66 and 1969-70 Averages

## ALGERIA

COMMODITY	1965-66 Average		1969-70 Average(a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut			4.3	
Sunflowerseed				
Rapeseed	57.5		44.0	
Copra				
Palm Kernel				
OILS (1):				
Soybean	4.5			
Cottonseed				
Groundnut				
Sunflowerseed	15.5		32.3	
Rapeseed			3.5	
Coconut				
Palm Kernel				
Palm				
Olive (b)		5.5		4.4
Fish Oil				
MEALS (2):				
Soybean	1.4		2.6 *	
Cottonseed				
Groundnut	.8		.6 *	
Sunflowerseed	.3			
Rapeseed		26.7		29.1 *
Copra				
Palm Kernel				
Oilseeds NES	.1	4.4	.8 *	3.6 *
Fish Meal				

\*1969 figures only

(a) 1970 Preliminary  
(b) Includes Residue Oil

## Source:

(1) Oil World - November 1969-71  
(2) F.A.O. Trade Yearbook, 1970

TABLE 18-2

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

-----By Country : 1965-66 and 1969-70 Averages-----

## EGYPT

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 Metric Tons)		(1,000 Metric Tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut*		7.1		14.4
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
*1966 figure only				
OILS (1):				
Soybean	15.0		7.5	
Cottonseed			27.5	
Groundnut				
Sunflowerseed				
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive (b)				
Fish				
MEALS (1):				
Soybean				
Cottonseed		7.0		.5
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed		6.5		9.2
Oilseeds NES		24.7		35.3
Fish				

(a)

1970 Preliminary

(b)

Includes Residue Oil

Source:

(1)

Oil World - November 1969-71

TABLE 18 - 3

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

-----By Country: 1965-66 and 1969-70 Averages-----

## LIBYA

COMMODITY	<u>1965-66 Average</u>		<u>1969-70 Average (a)</u>	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut		2.3		1.4
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
OILS (1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive (b)	2.8		7.5	
Fish				
MEALS (1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish				
(a)	1970 Preliminary			
(b)	Includes Residue Oil			
Source:				
(1)	Oil World - November 1969-71			

TABLE 18 - 4

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

----- By Country : 1965-66 and 1969-70 Averages -----

## MOROCCO

COMMODITY	1965-66 Average		1969-70 Average(a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans	4.7		1.0	
Cottonseed				
Groundnut	3.3		.5	
Sunflowerseed			.1	
Rapeseed			17.2	
Copra				
Palm Kernel				
OILS (1):				
Soybean	27.1		22.3	
Cottonseed	1.0		2.8	
Groundnut				
Sunflowerseed	17.6		24.7	
Rapeseed	2.6			
Coconut				
Palm Kernel				
Palm				
Olive (b)		8.6(2)		27.0
Fish Oil		4.6		6.6
MEALS (1) (2):				
Soybean		.5		
Cottonseed		6.3		4.1
Groundnut		.7		
Sunflowerseed				
Rapeseed		.2		12.2*
Copra		.1		
Palm Kernel				
Linseed		1.5		1.3
Oilseeds NES		.8		4.9
Fish Meal <sub>(1)</sub> (net)		29.0		25.4

\*1969 only

(a) 1970 Preliminary  
(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71  
(2) F.A.O. Trade Yearbook, 1970



TABLE 18 - 5

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

-----By Country: 1965-66 and 1969-70 Averages-----

## SUDAN

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
(1, 000 Metric Tons)				
OILSEEDS (1):				
Soybeans				
Cottonseed		56.3 <sup>(2)</sup>		72.5
Groundnut		125.8 <sup>(2)</sup>		69.3
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
OILS (1):				
Soybean				
Cottonseed		9.7		11.2
Groundnut		.8*		
Sunflowerseed				
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive <sup>(b)</sup>				
Fish				
	*1966 figure only			
MEALS (1):				
Soybean				
Cottonseed		128.5		156.7
Groundnut		19.7		31.9
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish				

(a) 1970 Preliminary

(b) Includes Residue Oil.

Source:

(1) Oil World - November 1969-71

(2) Foreign Agriculture Circular - October 1971

TABLE 18-6

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

-----By Country : 1965-66 and 1969-70 Averages-----

## TUNISIA

COMMODITY	<u>1965-66 Average</u>		<u>1969-70 Average (a)</u>	
	Imports (1,000 metric tons)	Exports (1,000 metric tons)	Imports (1,000 metric tons)	Exports (1,000 metric tons)
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
OILS (1):				
Soybean	23.4		38.3	
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive (b)	.7	43.6		25.6
Fish				
MEALS (2):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed		.5		
Oilseeds NES	.6	****	.8*	2.1*
Fish				

\*1969 figures only

(a) 1970 Preliminary  
 (b) Includes Residue Oil.  
 \*\*\*\* negligible

Source:

(1) Oil World - November 1969-71  
 (2) F.A.O. Trade Year Book, 1970.

TABLE 19  
WORLD TRADE IN OILSEEDS, OILS AND MEALS  
-----By Country : 1965-66 and 1969-70 Averages-----

WEST ASIA - TOTAL

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 Metric Tons)		(1,000 Metric Tons)	
<u>OILSEEDS (1):</u>				
Soybeans	248.2		266.8	
Cottonseed	37.1	22.4 <sup>(2)</sup>	42.6	18.9
Groundnut		3.2 <sup>(2)</sup>		8.7
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
<u>OILS (1):</u>				
Soybean	59.4	20.4	83.8	13.0
Cottonseed	20.2	15.0 <sup>(2)</sup>	12.6	11.9
Groundnut				.3
Sunflowerseed	13.7		49.3	
Rapeseed				
Coconut				
Palm Kernel				
Palm	41.5		64.2	
Olive <sup>(b)</sup>	1.4	13.1 <sup>(2)</sup>	.2	11.7
Fish				
<u>MEALS (1):</u>				
Soybean				
Cottonseed		289.4		280.3
Groundnut				
Sunflowerseed		69.0		90.1
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES		5.0		1.0
Fish				

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) Oil World - November, 1969-71

(2) Foreign Agriculture Circular - October 1971

TABLE 19-1

WORLD TRADE IN OILSEEDS, OILS AND MEALS  
 -----By Country : 1965-66 and 1969-70 Averages-----

## IRAN

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 Metric Tons)		(1,000 Metric Tons)	
<u>OILSEEDS (1):</u>				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
<u>OILS (1):</u>				
Soybean	35.3		63.3	
Cottonseed	20.2		12.6	
Groundnut	.2			
Sunflowerseed	3.0		49.3	
Rapeseed				
Coconut	.7	(2)	.6	
Palm Kernel				
Palm				
Olive <sup>(b)</sup>	.4	(2)		
Fish				
<u>MEALS (1):</u>				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish				

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71

(2) F.A.O. Trade Yearbook, 1970

TABLE 19-2  
WORLD TRADE IN OILSEEDS, OILS AND MEALS  
-----By Country : 1965-66 and 1969-70 Averages-----

IRAQ

COMMODITY	<u>1965-66 Average</u>		<u>1969-70 Average (a)</u>	
	Imports	Exports	Imports	Exports
	(1,000 Metric Tons)		(1,000 Metric Tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
OILS (1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Coconut				
Palm Kernel				
Palm	39.7		64.2	
Olive <sup>(b)</sup>				
Fish				
MEALS (1):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish				

(a) 1970 Preliminary.

(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71



TABLE 19-3

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## ISRAEL

COMMODITY	<u>1965-66 Average</u>		<u>1969-70 Average (a)</u>	
	Imports (1,000 metric tons)	Exports	Imports (1,000 metric tons)	Exports
<u>OILSEEDS (1):</u>				
Soybeans	248.2		266.9	
Cottonseed				9.6
Groundnut				4.8
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
<u>OILS (1):</u>				
Soybean	16.7	20.4	15.9	13.0
Cottonseed		2.4 <sup>(2)</sup>		4.6
Groundnut				.3
Sunflowerseed				
Rapeseed				
Coconut	.2 <sup>(2)</sup>			
Palm Kernel				
Palm	.3 <sup>(2)</sup>			
Olive <sup>(b)</sup>		.4 <sup>(2)</sup>		
Fish				
<u>MEALS (1):</u>				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish				

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71

(2) F.A.O. Trade Yearbook, 1970

TABLE 19-4

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

-----By Country : 1965-66 and 1969-70 Averages-----

## LEBANON

COMMODITY	<u>1965-66 Average</u>		<u>1969-70 Average (a)</u>	
	Imports	Exports	Imports	Exports
	(1,000 Metric Tons)		(1,000 Metric Tons)	
<u>OILSEEDS (1):</u>				
Soybeans				
Cottonseed	37.1		42.6	
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
<u>OILS (1):</u>				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive <sup>(b)</sup>		.8 <sup>(2)</sup>		
Fish				
<u>MEALS (1):</u>				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish				

(a) 1970 Preliminary  
(b) Includes Residue Oil

## Source:

(1) Oil World - November 1969-71  
(2) F.A.O. Trade Yearbook, 1970

TABLE 19 - 5

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## SYRIA

COMMODITY	1965-66 Average		1969-70 Average(a)	
	Imports (1,000 metric tons)	Exports (1,000 metric tons)	Imports (1,000 metric tons)	Exports (1,000 metric tons)
OILSEEDS (1):				
Soybeans				
Cottonseed		22.4 <sup>(2)</sup>		9.3
Groundnut		3.7*		4.0
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
*1966 figure only				
OILS (1):				
Soybean				
Cottonseed		15.0		7.3
Groundnut				
Sunflowerseed				
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive (b)	.4	1.1		.5
Fish				
MEALS (1):				
Soybean				
Cottonseed		124.7		100.5
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish				

(a)

1970 Preliminary

(b)

Includes Residue Oil

Source:

(1)

Oil World- November 1969-71

(2)

Foreign Agriculture Circular - October 1971

TABLE 19-6

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

-----By Country : 1965-66 and 1969-70 Averages-----

## TURKEY

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
OILS (1):				
Soybean	7.4		4.6	
Cottonseed	2.6		.1	
Groundnut				
Sunflowerseed	10.7			
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive (b)		12.4		11.3
Fish				
MEALS (1):				
Soybean				
Cottonseed		164.8		179.8
Groundnut				
Sunflowerseed		69.0		90.1
Rapeseed				
Copra				
Palm Kernel				
Linseed				1.1*
Oilseeds NES		5.7		1.0 (2)
Fish				

\*1969 figure only

(a) 1970 Preliminary  
(b) Includes Residue Oil

## Source:

(1) Oil World - November 1969-71  
(2) F.A.O. Trade Yearbook, 1970

TABLE 20

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## SOUTH ASIA - TOTAL

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric Tons)	Exports	Imports (1,000 Metric Tons)	Exports
<u>OILSEEDS (1):</u>				
Soybeans				
Cottonseed				
Groundnut		1.5		37.1
Sunflowerseed				
Rapeseed	19.2		14.7	
Copra	41.3	32.0	19.2	17.0
Palm Kernel				
<u>OILS (1):</u>				
Soybean	113.6		224.1	
Cottonseed	13.4		4.1	
Groundnut		.6		.2
Sunflowerseed	4.0		1.9	
Rapeseed	.3	.5	.1	.3
Coconut	13.8	81.2	9.0	56.0
Palm Kernel			.2	
Palm	21.6			
Olive <sup>(b)</sup>				
Fish				
<u>MEALS (1):</u>				
Soybean				
Cottonseed		142.1		128.7
Groundnut		703.8		592.3
Sunflowerseed				
Rapeseed		18.2		18.8
Copra		26.2		8.8
Palm Kernel				
Linseed		6.1		24.9
Oilseeds NES		10.9		64.9
Fish				

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) Tables 20-1 to 20-3 inclusive

TABLE 20-1

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

----- By Country : 1965-66 and 1969-70 Averages -----

## CEYLON

COMMODITY	<u>1965-66 Average</u>		<u>1969-70 Average (a)</u>	
	Imports	Exports	Imports	Exports
	(1,000 Metric Tons)		(1,000 Metric Tons)	
<u>OILSEEDS (1):</u>				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra		32.0		17.0
Palm Kernel				
<u>OILS (1):</u>				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Coconut		81.0		56.0
Palm Kernel				
Palm				
Olive(b)				
Fish				
<u>MEALS (1) (2):</u>				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra		6.2		****
Palm Kernel				
Linseed				
Oilseeds NES				
Fish				

(a) 1970 Preliminary  
(b) Includes Residue Oil  
\*\*\*\* negligible

## Source:

- (1) Foreign Agriculture Circular - October 1971  
(2) F.A.O. Trade Yearbook, 1970



TABLE 20-2

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## INDIA

COMMODITY	1965-66 Average		1969-70 Average(a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans				
Cottonseed				
Groundnut		1.5		37.1
Sunflowerseed				
Rapeseed				
Copra	41.3		19.2	
Palm Kernel				
OILS (1):				
Soybean	52.4		111.3	
Cottonseed				
Groundnut		.6		.2
Sunflowerseed	4.0		1.9	
Rapeseed	.3(2)	.5(2)	.1(2)	.3(2)
Coconut	.1(2)	.2(2)		****(2)
Palm Kernel				
Palm	21.6		.2(2)	
Olive(b)				
Fish				
MEALS (1):				
Soybean				
Cottonseed		114.9		97.8
Groundnut		697.6		591.0
Sunflowerseed				
Rapeseed				
Copra		20.0		8.8
Palm Kernel				
Linseed		6.1		24.9
Oilseed NES		10.9		64.1
Fish				

(a)

1970 Preliminary

(b)

Includes Residue Oil

\*\*\*\*

Negligible

Source:

(1)

Oil World - November 1969-71

(2)

F.A.O. Trade Yearbook, 1970

TABLE 20-3

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## PAKISTAN

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 Metric Tons)		(1,000 Metric Tons)	
<u>OILSEEDS (1):</u>				
Soybeans				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed	19.2		14.7	
Copra				
Palm Kernel				
<u>OILS (1):</u>				
Soybeans	61.2		112.8	
Cottonseed	13.4		4.1	
Groundnut				
Sunflowerseed				
Rapeseed				
Coconut	13.7		9.0	
Palm Kernel				
Palm				
Olive <sup>(b)</sup>				
<u>MEALS (1):</u>				
Soybean				
Cottonseed		27.2		30.9
Groundnut		6.2		1.3
Sunflowerseed				
Rapeseed		18.2		18.8
Copra				
Palm Kernel				
Linseed				
Oilseeds NES		7.1		.8
Fish				

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71

TABLE 21

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## SOUTH EAST ASIA - TOTAL

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans		3.9(2)		5.7
Cottonseed		13.4(2)		38.7
Groundnut		17.7(2)		6.3
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
OILS (1):				
Soybean	12.2		1.0	
Cottonseed				
Groundnut	1.4			
Sunflowerseed				
Rapeseed				
Coconut	4.1		2.0	
Palm Kernel				
Palm				
Olive <sub>(b)</sub>				
Fish				
MEALS (1):				
Soybean		2.5		6.7
Cottonseed		6.8		
Groundnut		52.2		33.0
Sunflowerseed				
Rapeseed				
Copra		7.5		8.5
Palm Kernel				
Linseed				
Oilseeds NES		69.5		70.6
Fish				

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71

(2) Foreign Agriculture Circular - October 1971

TABLE 22

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## EAST ASIA AND PACIFIC ISLANDS - TOTAL

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric Tons)	Exports	Imports (1,000 Metric Tons)	Exports
<u>OILSEEDS (1):</u>				
Soybeans	207.7		649.3	6.3
Cottonseed	1.1		1.5	1.5
Groundnut	30.1		21.3	31.9
Sunflowerseed				
Rapeseed			10.0	
Copra	36.6	1,298.3 <sup>(2)</sup>	58.7	908.8
Palm Kernel	6.8	53.6 <sup>(2)</sup>	14.5	84.7
<u>OILS (1):</u>				
Soybean	10.1		5.8	
Cottonseed	26.2 <sup>(2)</sup>	.4 <sup>(2)</sup>	2.9	.1
Groundnut	17.9	7.9 <sup>(2)</sup>	21.0	5.8
Sunflowerseed				
Rapeseed	13.3	.7	23.8	1.3
Coconut	11.4	350.7 <sup>(2)</sup>	16.4	405.9
Palm Kernel		.3 <sup>(2)</sup>		2.0
Palm	53.8	367.0	127.9	661.1
Olive <sup>(b)</sup>				
Fish				
<u>MEALS (1):</u>				
Soybean	8.7 <sup>(3)</sup>		51.7 <sup>(2)</sup>	
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra		332.4		420.3
Palm Kernel				
Linseed				
Oilseeds NES		7.2 <sup>(3)</sup>		12.1 <sup>(2)</sup>
Fish	34.3	6.4	53.2	15.1

(a) 1970 Preliminary

(b). Includes Residue Oil

Source:

(1) Oil World - November 1969-71

(2) Foreign Agriculture Circular - October 1971

(3) F.A.O. Trade Yearbook, 1970

TABLE 22-1

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## HONG KONG

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports (1,000 Metric Tons)	Exports	Imports (1,000 Metric Tons)	Exports
<u>OILSEEDS (1):</u>				
Soybeans	11.8		19.0	
Cottonseed	1.1		1.5	1.5
Groundnut	11.1		12.2	3.0
Sunflowerseed				
Rapeseed				
Copra	2.3			
Palm Kernel				
<u>OILS (1):</u>				
Soybeans	8.1	1.3	5.6	
Cottonseed	.9	.4 <sup>(2)</sup>	.8	.1
Groundnut	11.6 <sup>(2)</sup>	4.6 <sup>(2)</sup>	13.2	3.0
Sunflowerseed				
Rapeseed	13.3	.7	23.8	1.3
Coconut	.6	.1	.3	
Palm Kernel				
Palm				
Olive <sup>(b)</sup>		****		
Fish				
<u>MEALS (2):</u>				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra	.8	.5	.1*	
Palm Kernel				
Linseed				
Oilseeds NES	8.5	1.7	11.3*	1.7*
Fish				

\*1969 figures only

(a) 1970 Preliminary  
 (b) Includes Residue Oil  
 \*\*\*\* negligible

## Source:

(1) Oil World - November 1969-70  
 (2) F.A.O. Trade Yearbook, 1970

TABLE 22-2

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## SINGAPORE

COMMODITY	1965-66 Average		1969-70 Average(a)	
	Imports (1,000 metric tons)	Exports (1,000 metric tons)	Imports (1,000 metric tons)	Exports (1,000 metric tons)
OILSEEDS (1):				
Soybeans	16.4		39.4	6.3
Cottonseed				
Groundnut	7.7		3.2	6.9
Sunflowerseed				
Rapeseed				
Copra (net exports)	22.5	23.0	50.0	13.6
Palm Kernel	14.0	7.0	14.5	6.8
OILS (1):				
Soybean	.1	.1	.2(2)*	
Cottonseed	.7(2)		1.2(2)*	
Groundnut	4.0	3.4	6.0	2.7
Sunflowerseed			1.7(2)*	
Rapeseed			1.8(2)*	
Coconut	11.4	22.7	12.9	36.0
Palm Kernel		.3		.9
Palm	53.8	51.8	127.0	123.3
Olive (b)				
Fish				
	*1969 figure only			
MEALS (2):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra	7.0		2.9*	
Palm Kernel				
Linseed				
Oilseeds NES	1.7	5.4	5.0*	10.4*
Fish(1)	26.3	6.3	37.4	

\*1969 figure only

(a) 1970 Preliminary  
(b) Includes Residue Oil

## Source:

(1) Oil World - November 1969-71  
(2) F.A.O. Trade Yearbook, 1970



TABLE 22-3

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

-----By Country : 1965-66 and 1969-70 Averages-----

## SOUTH KOREA

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans			27.0	
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
OILS (1):				
Soybean	****		1.5 *	
Cottonseed	****		.9 *	
Groundnut			****	
Sunflowerseed				
Rapeseed				
Coconut	****		.2 *	
Palm Kernel				
Palm	****		.5 *	
Olive (b)	****		****	

Fish

\*1969 figures only

## MEALS (1):

Soybean  
Cottonseed  
Groundnut  
Sunflowerseed  
Rapeseed  
Copra  
Palm Kernel  
Linseed  
Oilseeds NES

Fish

(a) 1970 Preliminary  
(b) Includes Residue Oil

\*\*\*\* negligible

Source:

(1) F.A.O. Trade Yearbook, 1970

TABLE 22 - 4

## WORLD TRADE IN OILSEEDS, OILS AND MEALS

By Country : 1965-66 and 1969-70 Averages

## TAIWAN

COMMODITY	1965-66 Average		1969-70 Average (a)	
	Imports	Exports	Imports	Exports
	(1,000 metric tons)		(1,000 metric tons)	
OILSEEDS (1):				
Soybeans	163.0		544.9	
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed			10.0	
Copra				
Palm Kernel				
OILS (1):				
Soybean	2.1			
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Coconut				
Palm Kernel				
Palm				
Olive (b)				
Fish				
MEALS (2):				
Soybean				
Cottonseed				
Groundnut				
Sunflowerseed				
Rapeseed				
Copra				
Palm Kernel				
Linseed				
Oilseeds NES				
Fish				

(a) 1970 Preliminary

(b) Includes Residue Oil

Source:

(1) Oil World - November 1969-71







